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(NASA-TM-X-73453) CONCENTRATIONS OF TRACE ELEMENTS AND COMPOUNDS IN THE AIRBORNE SUSPENDED PARTICULATE MATTER IN CLEVELAND, OHIO, FROM AUGUST 1971 TO AUGUST 1972 AND THEIR DEPENDENCE ON WIND DIRECTION: G3/45 47711

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CONCENTRATIONS OF TRACE ELEMENTS AND COMPOUNDS IN THE AIRBORNE SUSPENDED PARTICULATE MATTER IN CLEVELAND, OHIO, FROM AUGUST 1971 TO AUGUST 1972 AND THEIR DEPENDENCE ON WIND DIRECTION: COMPLETE DATA LISTING AND CONCENTRATION ROSES

by Robert B. King and Harold E. Neustadter
Lewis Research Center
Cleveland, Ohio 44135

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16. Abstract

Concentrations of 75 chemical constituents in the airborne particulate matter were measured in Cleveland, Ohio during 1971 and 1972. Daily values, maxima, geometric means and their standard deviations covering a 1-year period (45 to 50 sampling days) at each of 16 sites are presented on microfiche for 60 elements, and for a lesser number of days for 10 polycyclic aromatic hydrocarbon compounds (PAH), the aliphatic hydrocarbon compounds (AH) as a group and carbon. In addition, concentration roses showing directional properties are presented for 39 elements, 10 PAH and the AH as a group. The elements (except carbon) are shown both in terms of concentration and percentage of the suspended particulate matter.

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SUMMARY

Concentrations of 75 chemical constituents in the airborne particulate matter were measured in Cleveland, Ohio during 1971 and 1972. Daily values, maxima, geometric means and their standard deviations covering a 1-year period (45 to 50 sampling days) at each of 16 sites are presented on microfiche for 60 elements, and for a lesser number of days for 10 polycyclic aromatic hydrocarbon compounds (PAH), the aliphatic hydrocarbon compounds (AH) as a group and carbon. In addition, concentration roses showing directional properties are presented for 39 elements, 10 PAH and the AH as a group. The elements (except carbon) are shown both in terms of concentration and percentage of the suspended particulate matter.

In previous publications (refs. 1 and 2) a fairly extensive analysis of the data from a 1-year study of the trace element and compound composition of the total suspended particulate matter (TSP) in the ambient air in Cleveland, Ohio was presented. Included were means and maxima of the 75 constituents determined for the period August 10, 1971 - August 10, 1972. However, because of the large volume of data involved (~30 000 separate data values), the individual 24-hour values were not presented. Substantial interest has been indicated in these values by individuals wishing to examine the data according to their own specific needs and interests. We are consequently making this data available as a convenient package on microfiche.

To aid the reader we have included a map showing the measurement locations. Also presented here are complete sets of concentration roses for 39 elements, 10 polycyclic aromatic hydrocarbon compounds (PAH), and the aliphatic hydrocarbons (AH) as a group. Table I lists the specific constituents

for which data is presented. Finally, the results of a linear correlation study of the hydrocarbons and carbon are included.

The experimental and data analysis procedures have previously been reported (refs. 1 and 2). Some of the previously reported values (means, etc.) for the hydrocarbons and carbon may differ slightly from those reported here because of a programming error in the earlier work that affected the results when more than two determinations were averaged to obtain a single value. This has been corrected and, hopefully, there are no further errors. In addition to the daily values and their percentage of the TSP, we have included the geometric means and their standard deviations, and the maximum value for each monitoring site for each constituent. It is important to note that the tables are a direct computer printout. Consequently, the number of places is not significant. The uncertainties associated with the data have previously been discussed (refs. 1 and 2).

The concentration roses were generated using this same data. The daily 24-hour values were separated using the resultant vector wind direction obtained from the National Weather Service (NWS) (ref. 3), and the mean value for each of 16 directions was plotted logarithmically on the polar plot, the direction of the line being that from which the (resultant) wind blew. Two sets of plots are presented for the elements (except carbon) - one (unmarked) as the concentrations in ng/m^3 and the other (marked "percent") as the percentage of the TSP. The plots for the hydrocarbons and carbon are in terms of ng/m^3 only. The values for the inner and outer circles and for the maximum are given in scientific notation. For example, for sodium (percent) the maximum value is 0.641E01, which means 6.41 percent. The elements are sequentially arranged according to their atomic number. Accompanying each plot is a chart showing how many values were averaged for each direction at each site. A minus one indicates that there were one or more "less than" values (values below the detection limit of the method). When a "less than" value is met, a value two-thirds of the smallest value for that site is entered for the average computation. Unfortunately, when a minus one is entered into the chart, the number of entries for that direction is not presented.

Since the wind did not blow exclusively from one direction over the 24-hour sampling period, the mean concentration for each direction was weighted for directional stability. The directional stability factor for the wind (totally stable $\equiv 1$) is defined as the ratio of the vector wind velocity v_i to the scalar wind speed s_i for the ith day. The mean stability-weighted mean concentration of each constituent $\overline{C}$ for each of 16 vector wind directions (0°, 22.5°, 45°, 67.5°, . . ., etc.) for which data was available was obtained from the equation

$$\bar{C} = \frac{\sum_i \frac{v_i}{s_i} C_i}{\sum_i \frac{v_i}{s_i}}$$

where C_i is the observed concentration of that constituent on the ith day. The summations were made over the days for which data was available. Values of v_i and s_i are available from the NWS tabulations (ref. 3). In the polar plots each wind direction line bisects a sector covering $22\frac{1}{2}^\circ$ (e.g., at 90° (east) the sector coverage is from $78\frac{3}{4}^\circ$ to $101\frac{1}{4}^\circ$).

Wind data is available from two locations, one at Cleveland Hopkins Airport on the far southwest side and one at Burke Lakefront Airport on Lake Erie near downtown Cleveland. Wind data from one or the other was utilized for a site according to its location relative to these weather stations. Sites 1, 4, 6, 7, 10, 15, 17, 20, and 21 used Burke wind data while sites 2, 5, 8, 9, 12, 13, and 14 used Hopkins wind data. Obviously the farther the site is from the weather station, the less confidence one places in the directional results. This, in addition to the fact that the samples were collected over a 24-hour period during which the wind blew from several directions, cautions one to use the results with discretion. However, in our opinion they are an excellent indicator of emitting sources in the general direction shown.

Because a number of the hydrocarbons are considered carcinogenic to man and their individual analysis is difficult, we analyzed the hydrocarbon and carbon data to see what correlations exist to determine if the analysis of one or two might make possible the reliable estimation of a number of others. In general, we found no correlations that we felt were significant. The linear correlation coefficient for each pair (hydrocarbons and carbon) is listed in Table II.

REFERENCES

1. King, Robert B.; et al.: Extensive 1-Year Survey of Trace Elements and Compounds in the Airborne Suspended Particulate Matter in Cleveland, Ohio. NASA TN D-8110, 1976.

2. Neustadter, H. E.; King, R. B.; and Fordyce, J. S.: Elemental Composition of Suspended Particulates as Functions of Space and Time in Cleveland, Ohio. NASA TM X-71688, 1975.

3. Climatological Data for Cleveland, Ohio, 1971 and 1972. National Weather Service, National Oceanic and Atmospheric Agency, 1971-1972.

TABLE I. - CONSTITUENTS FOR WHICH DATA IS PRESENTED

Elements	Hydrocarbons
Carbon	3, 4-Benzopyrene (BaP)
Sodium	1, 2-Benzopyrene (BeP)
Aluminum	Pyrene
Silicon	1, 2-Benzofluorene
Chlorine	Benz-m, n, o-fluoranthene
Potassium	Benzacridine
Scandium	Benzanthracene
Titanium	3, 4-Benzfluoranthene
Vanadium	Perylene
Chromium	1, 12-Benzoperylene
Manganese	Aliphatic hydrocarbons as a group
Iron	
Cobalt	
Copper	
Zinc	
Gallium	
Arsenic	
Selenium	
Bromine	
Rubidium	
Silver	
Cadmium	
Indium	
Tin	
Antimony	
Cesium	
Lanthanum	
Cerium	
Samarium	
Europium	
Terbium	
Dysprosium	
Ytterbium	
Lutetium	
Hafnium	
Mercury	
Lead	
Bismuth	
Thorium	

TABLE II. - HYDROCARBON AND CARBON CORRELATION COEFFICIENTS FOR THE RATIOS LISTED

Symbol	Compound or element
A	Pyrene
B	1, 2-Benzofluorene
C	Benzo-m, n, o-fluoranthene
D	Benzacridine
E	Benzanthracene
F	3, 4-Benzofluoranthene
G	1, 2-Benzopyrene
H	3, 4-Benzopyrene
I	Perylene
J	1, 12-Benzoperylene
K	Aliphatics (total)
L	Carbon (before)
M	Carbon (after)

Ratio	Sites															
	1	3	4	5	6	7	8	9	10	12	13	14	15	17	20	21
B:A	0.818	0.771	0.456	0.582	0.374	0.453	0.194	0.693	0.659	0.728	0.476	0.133	0.325	0.676	0.766	0.773
C:A	.887	.123	.740	-.088	.334	.147	-.056	.596	.267	-.032	.835	.225	.116	.342	.716	.200
C:B	.573	-.142	.199	.111	.383	.135	.010	.385	.172	.160	.467	.048	-.216	.212	.441	.268
D:A	.996	-.093	.343	.685	.968	.461	.292	.333	.383	.883	.947	.735	.540	.885	.994	.308
D:B	.948	.034	-.621	.016	.989	.758	.640	.258	.283	.955	.697	.728	.926	.881	.693	.923
D:C	.998	.003	.626	-.149	.724	.111	.252	.539	-.061	.432	.795	.524	.665	.967	.992	.613
E:A	.367	.143	-.007	.269	.406	.013	-.111	.586	.446	.023	.069	-.057	.091	.226	.026	.544
E:B	.685	.030	.190	.562	.924	.644	-.005	.601	.281	.646	.180	.599	.360	.423	-.059	.739
E:C	.126	.294	-.064	.647	.489	.105	-.065	.877	.174	.184	.224	.514	-.071	-.025	-.107	.302
E:D	.506	.220	.089	.651	.834	.795	.539	.503	.067	-.217	.885	.769	.702	.927	.969	.873
F:A	.914	.337	-.039	.489	.429	.658	.246	.209	.612	.399	.015	.190	.112	.701	.807	.605
F:B	.720	.072	.463	.702	.139	.763	.590	.712	.390	.526	.118	-.004	.162	.504	.585	.644
F:C	.760	.613	-.087	.048	.491	.201	-.069	.200	.136	.242	.166	.244	-.088	.640	.832	.368
F:D	.943	.075	.920	.590	-.017	.638	.575	-.136	.067	.442	.716	.965	.601	.981	.998	.917
F:E	.467	.241	.477	.832	.377	.285	-.018	.453	.026	.266	.982	.467	.094	.057	.044	.597
G:A	.939	.511	.458	.475	.612	.540	.251	.198	.774	.515	.232	.031	.612	.460	.767	.590
G:B	.690	.252	.543	.712	.122	.525	.576	.725	.417	.522	.493	-.081	.304	.363	.563	.518
G:C	.801	.256	.524	.008	-.024	.033	-.062	.254	.289	.004	.290	.282	-.184	.515	.818	.301
G:D	.973	-.142	.717	.731	.326	.334	.464	-.302	.830	.384	.713	.753	.871	.721	.100	.607
G:E	.397	.069	.549	.842	.136	.087	.093	.492	.039	.176	.079	.433	.292	.043	-.038	.512
G:F	.991	.578	.760	.967	.523	.621	.884	.891	.564	.675	.708	.908	.311	.749	.989	.928
H:A	.958	.285	.726	.422	.182	.125	.100	.189	.738	.658	.230	.060	.640	.407	.880	.597
H:B	.658	.063	.267	.476	-.077	.247	.260	.736	.415	.710	.624	-.056	.306	.292	.573	.565
H:C	.906	.195	.976	-.087	-.095	-.001	-.116	.147	.270	.100	.203	.322	-.165	.477	.819	.314
H:D	.980	-.041	.238	.747	-.300	.653	.267	-.257	.388	.528	.780	.793	.999	.735	.991	.707
H:E	.299	.138	-.103	.230	.128	.201	.465	.340	.081	.169	.221	.525	.095	.032	-.019	.512
H:F	.952	.745	-.055	.686	.273	.343	.790	.840	.748	.732	.248	.905	.259	.751	.993	.931
H:G	.973	.747	.537	.696	.668	.325	.872	.949	.856	.818	.847	.929	.824	.858	.987	.987
I:A	.929	.270	.663	.395	.698	.399	.488	.341	.539	.444	.233	-.060	.628	.085	.852	.712
I:B	.676	-.030	.253	.610	.243	.436	.238	.763	.323	.632	.567	-.173	.322	.204	.659	.588

TABLE II. - Concluded.

Ratio	Sites															
	1	3	4	5	6	7	8	9	10	12	13	14	15	17	20	21
I:C	0.963	0.928	0.960	0.027	0.074	-.025	-.154	0.429	0.161	0.023	0.198	0.257	-.250	0.094	0.503	0.198
I:D	.976	-.137	.463	.782	.905	.188	.384	.404	.880	.375	.187	.735	.893	.083	.999	.572
I:E	.323	.427	.103	.952	.234	.104	-.162	.647	.021	.374	.563	.489	.221	.378	-.015	.525
I:F	.882	.769	.069	.930	.353	.555	.808	.868	.605	.539	.578	.872	.476	.285	.605	.918
I:G	.902	.395	.599	.948	.871	.433	.930	.931	.803	.865	.955	.923	.931	.585	.599	.975
I:H	.971	.398	.963	.451	.887	.328	.882	.852	.714	.752	.900	.887	.918	.475	.851	.975
J:A	.909	.332	.056	.128	.322	.137	-.002	.131	.229	.404	-.244	-.260	.450	.397	.731	.368
J:B	.560	.125	.222	.452	-.015	.494	.054	.668	.190	.530	.062	-.053	.080	.340	.378	.431
J:C	.968	.039	-.125	.150	.589	.266	-.052	.080	.098	.460	-.022	.080	-.195	.453	.782	.391
J:D	.992	-.137	.921	-.481	-.621	.144	.238	-.115	.495	.740	.891	-.158	.184	.897	.100	.973
J:E	.092	-.046	.259	.308	.592	.672	-.055	.277	.033	.164	-.185	-.020	.163	.191	.029	.475
J:F	.819	.280	.563	.421	.831	.401	.523	.835	.421	.485	-.180	.395	-.007	.570	.759	.911
J:G	.866	.862	.379	.471	.514	.216	.391	.838	.274	.336	-.010	.296	.727	.419	.781	.810
J:H	.945	.547	-.034	.456	.337	.365	.384	.853	.334	.305	.496	.276	.808	.582	.735	.825
J:I	.947	.108	-.080	.395	.364	.419	.482	.764	.410	.378	-.009	.221	.759	.202	.901	.740
K:A	.875	.037	.224	.690	.694	-.238	-.071	.148	.260	.467	.708	-.140	.386	.465	.445	.873
K:B	.699	.141	-.523	.353	-.094	.457	.188	-.218	-.296	.599	.898	-.087	-.254	.384	-.153	.688
K:C	.639	-.150	.461	-.235	-.084	.551	-.036	.276	.434	.430	.408	.315	-.049	.325	.213	.398
K:D	.653	-.415	.100	.524	.647	.394	-.097	.705	-.332	-.867	.275	.659	-----	-.269	.100	-.100
K:E	.799	-.120	.262	.251	-.017	.623	.084	.287	-.301	.456	.937	.177	.157	.262	-.001	.668
K:F	.501	-.280	.287	.691	.442	.429	.233	-.324	.249	.599	.692	.847	.406	365	.219	.710
K:G	.566	.013	.219	.707	.668	-.028	.324	-.394	.650	.292	.935	.761	.419	.271	.265	.637
K:H	.486	.001	.320	.736	.319	.291	.330	-.412	.536	.544	.959	.848	.220	-.017	.067	.257
K:I	.566	.012	.446	.776	.758	.153	.140	-.509	.597	.350	.962	.822	.572	.044	.106	.671
K:J	.223	-.329	.504	-.262	.468	.414	.033	-.321	-.330	.225	.318	.364	.261	.136	.486	.477
L:A	.423	.381	.051	.489	.725	.279	.116	-.062	.436	.507	.069	-.139	-.061	.400	.702	.777
L:B	.646	.252	-.136	.351	.091	.615	-.047	-.097	.191	.745	.335	.048	-.027	.294	.551	.420
L:C	.209	.141	.057	-.093	.276	.111	.064	-.200	.165	.127	-.038	.135	-.297	.032	.570	.281
L:D	.850	-.280	-.036	.628	.336	.646	-.401	-.237	.216	.728	.746	.433	.962	.423	.100	.679
L:E	.552	.272	-.191	.082	.230	.416	.101	-.218	-.082	.476	.117	.378	.270	-.124	.444	.375
L:F	.341	.435	.083	.222	.564	.613	.299	.010	.373	.544	.165	.723	.255	.295	.603	.517
L:G	.328	.508	.048	.283	.389	.259	.285	.111	.376	.516	.655	.691	.275	.087	.535	.498
L:H	.297	.402	.099	.316	.083	.327	.450	.098	.426	.734	.823	.750	.280	-.058	.494	.445
L:I	.314	.282	.013	.182	.136	.349	.288	.030	.246	.584	.705	.639	.509	-.147	.479	.532
L:J	.203	.375	.388	-.164	.359	.226	.392	-.048	-.045	.222	.074	.529	.349	.162	.498	.425
L:K	.854	.510	-.144	.847	.855	.734	.652	.403	.606	.687	.771	.919	.560	.749	.280	.656
M:A	.437	.227	.027	.579	.574	.255	.216	-.086	.288	.405	.076	-.138	-.189	.277	.671	.742
M:B	.643	.111	-.183	.334	-.006	.599	.011	-.110	.199	.638	.291	.122	-.248	.214	.537	.382
M:C	.254	.151	.045	-.080	.249	.143	.105	-.158	.129	.129	-.062	.088	-.283	.131	.557	.271
M:D	.910	-.289	-.507	.673	.454	.488	-.281	-.269	.131	.485	.499	.519	.708	.321	.100	.616
M:E	.522	.235	-.226	-.009	.172	.355	-.040	-.194	-.115	.503	.047	.385	.044	-.105	.415	.223
M:F	.297	.300	-.086	.161	.451	.577	.343	-.119	.242	.528	.038	.708	.055	.215	.534	.668
M:G	.279	.468	-.070	.219	.287	.227	.265	.064	.314	.445	.513	.620	.073	.105	.471	.646
M:H	.278	.326	.108	.318	.033	.312	.383	.068	.304	.647	.691	.682	.047	-.072	.429	.622
M:I	.339	.235	.028	.115	.128	.354	.239	-.027	.200	.535	.567	.615	.178	-.111	.396	.669
M:J	.243	.341	.137	-.123	.266	.230	.425	-.054	-.164	.196	-.288	.493	.082	.186	.464	.545
M:K	.895	.477	.008	.984	.725	.614	.397	.500	.741	.696	.771	.883	.290	.781	.311	.719
M:L	.927	.907	.847	.939	.911	.916	.864	.937	.894	.905	.838	.960	.855	.807	.974	.815

SODIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

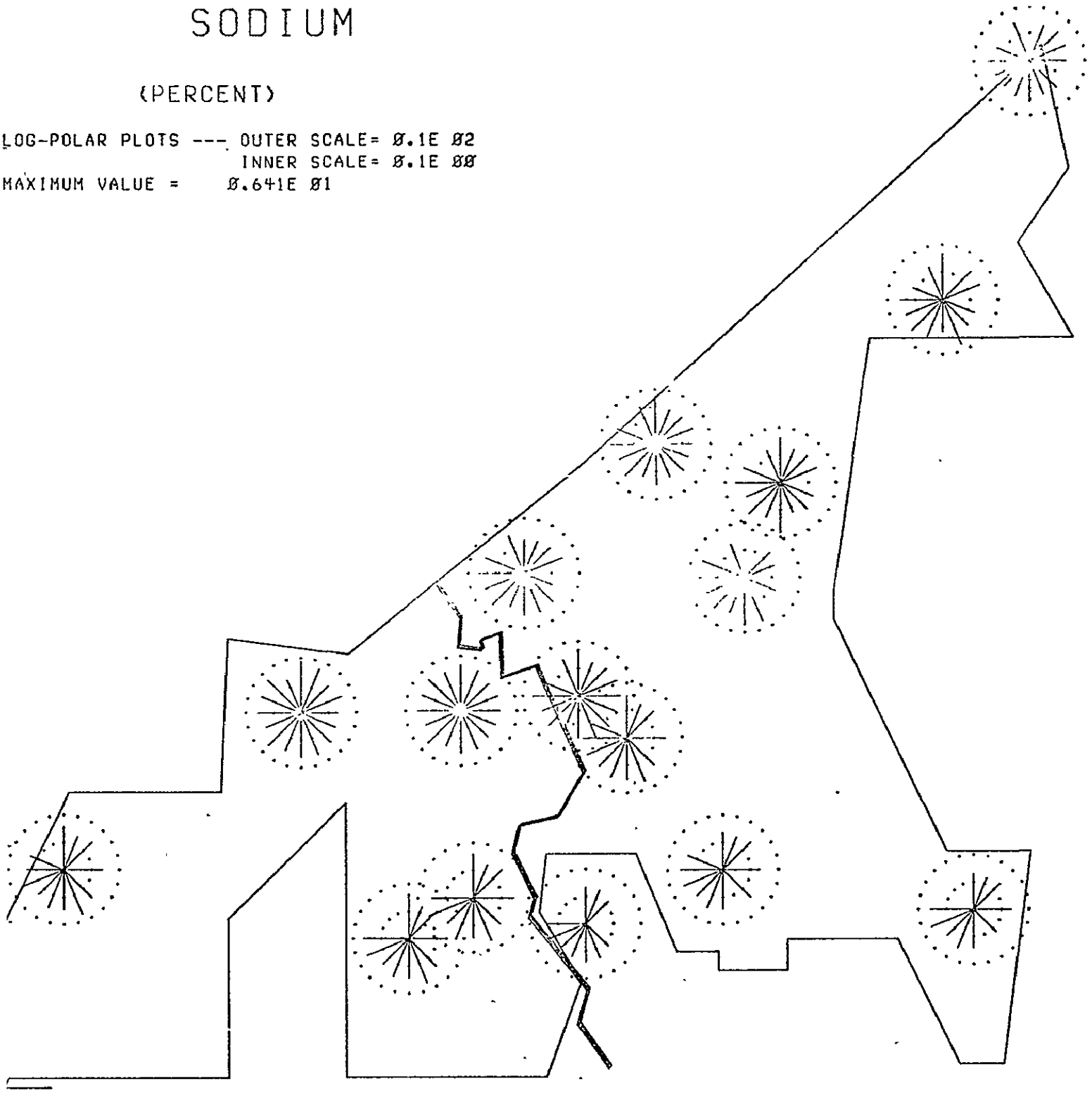
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	1	1	2	2	1	2	5	4	7	3	0	4
3	3	3	3	0	3	0	1	3	6	9	6	5	4	0	0	0
4	0	0	2	-1	0	1	0	1	1	2	4	4	6	1	0	3
5	2	3	4	0	3	0	1	0	4	6	4	4	2	1	0	0
6	1	0	4	3	0	1	1	1	-1	1	4	4	5	-1	0	3
7	1	1	7	3	1	1	1	2	2	3	3	7	7	2	1	3
8	3	3	3	0	3	0	1	3	6	8	6	4	2	0	0	0
9	3	2	3	0	3	0	1	2	5	7	4	5	4	1	0	0
10	1	1	7	3	1	1	1	1	1	1	5	8	8	3	0	4
12	3	3	3	0	3	0	1	3	5	9	6	3	3	1	0	0
13	3	4	-1	0	0	0	-1	1	2	6	4	4	4	0	0	0
14	2	1	3	0	3	0	-1	0	4	5	2	3	3	0	0	0
15	1	2	7	3	1	1	1	2	2	3	4	7	8	3	1	3
17	1	1	6	3	0	1	1	-1	2	3	4	6	5	3	0	3
20	0	1	6	2	1	0	2	2	1	2	1	4	5	2	0	4
21	1	1	7	1	0	-1	2	2	2	2	2	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

SODIUM

(PERCENT)

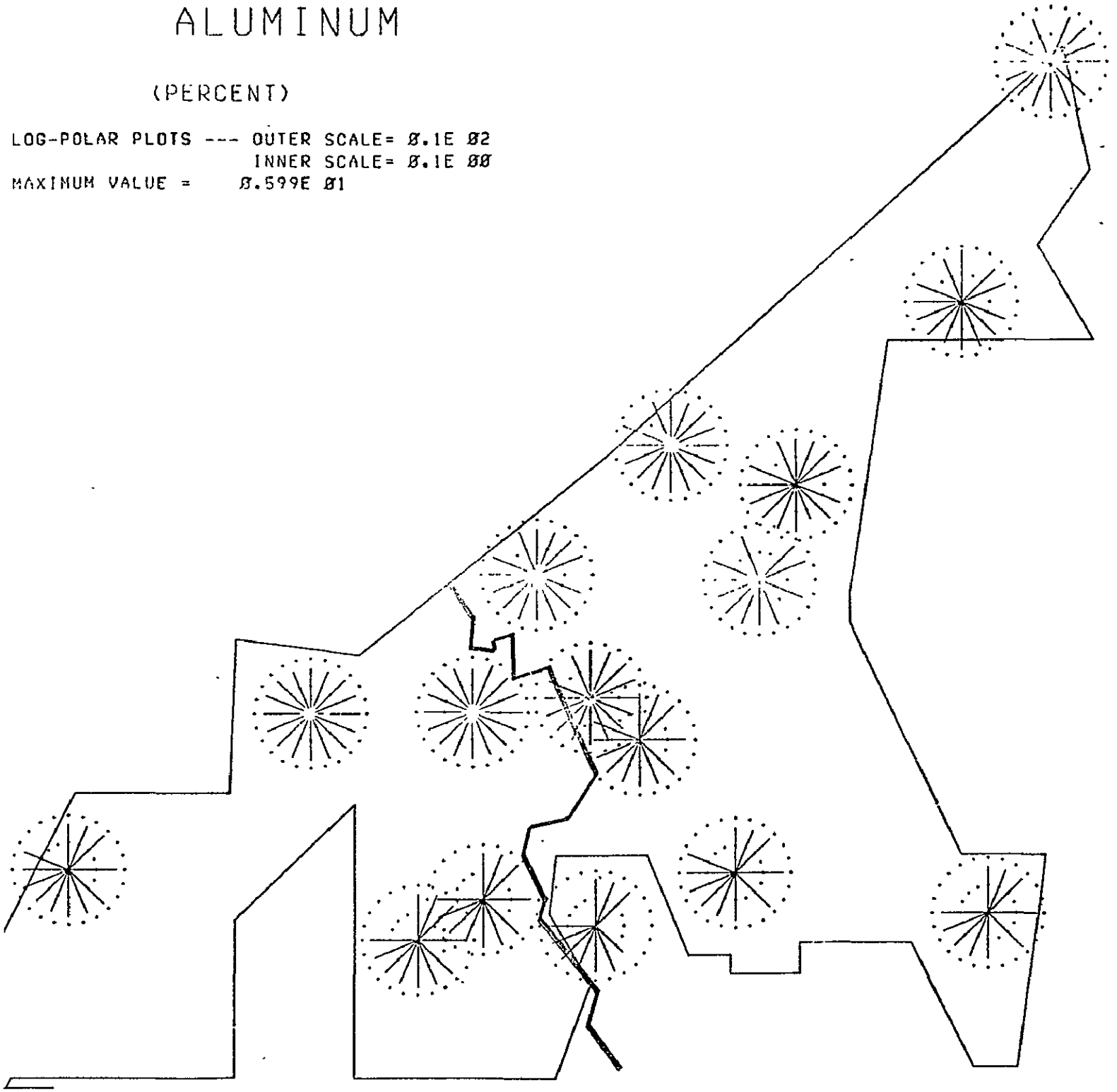
LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.641E Ø1



ALUMINUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.599E Ø1



ALUMINUM

(PERCENT) NUMBER OF READINGS

SITE

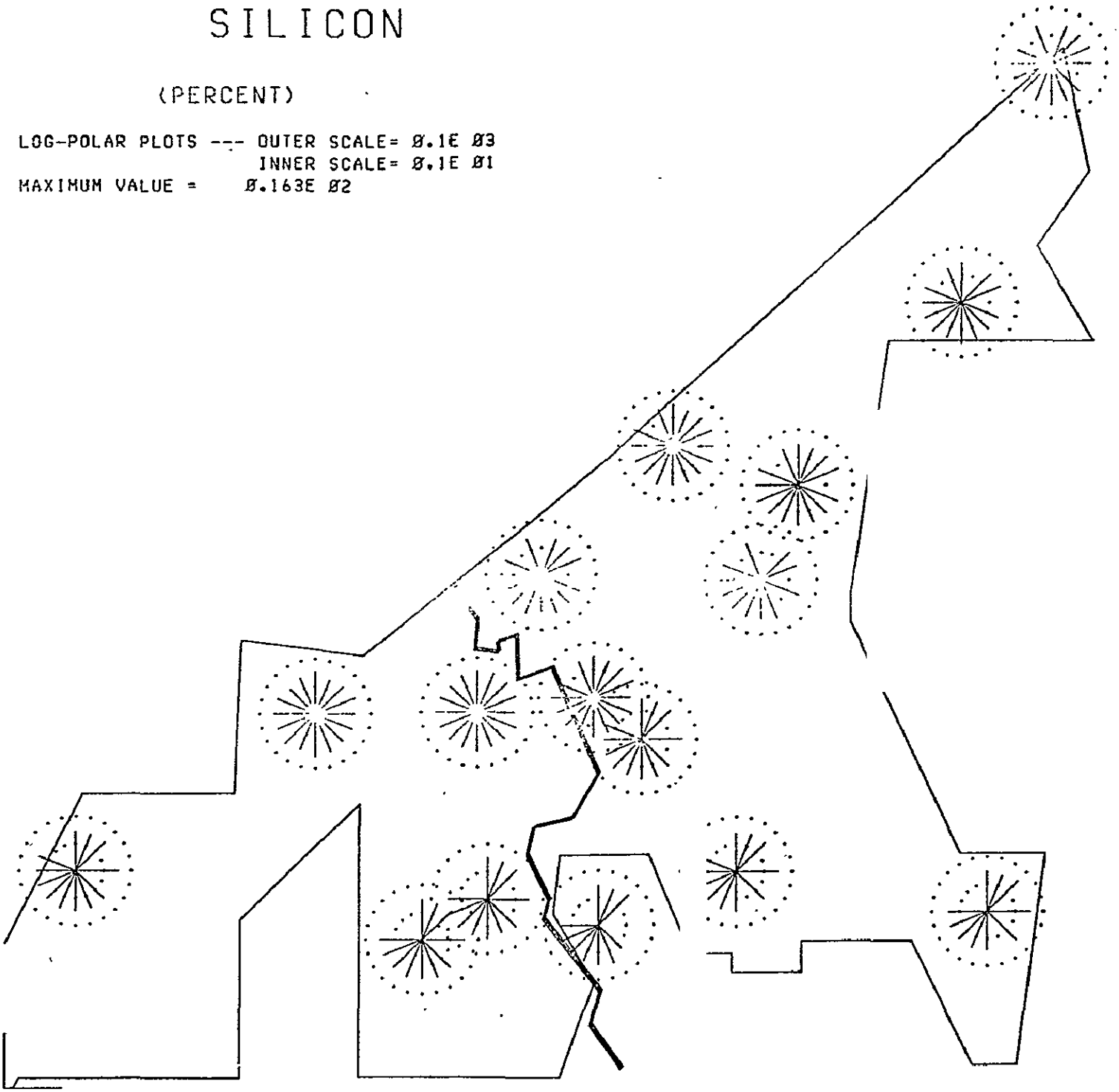
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	Ø	-	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	3	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	5	-	1	Ø	1	2	-	3	-	7	7	3	1	5
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	7	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	2	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

I INDICATES ESTIMATED VALUE

SILICON

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.163E Ø2



SILICON

(PERCENT) NUMBER OF READINGS

WIND FROM

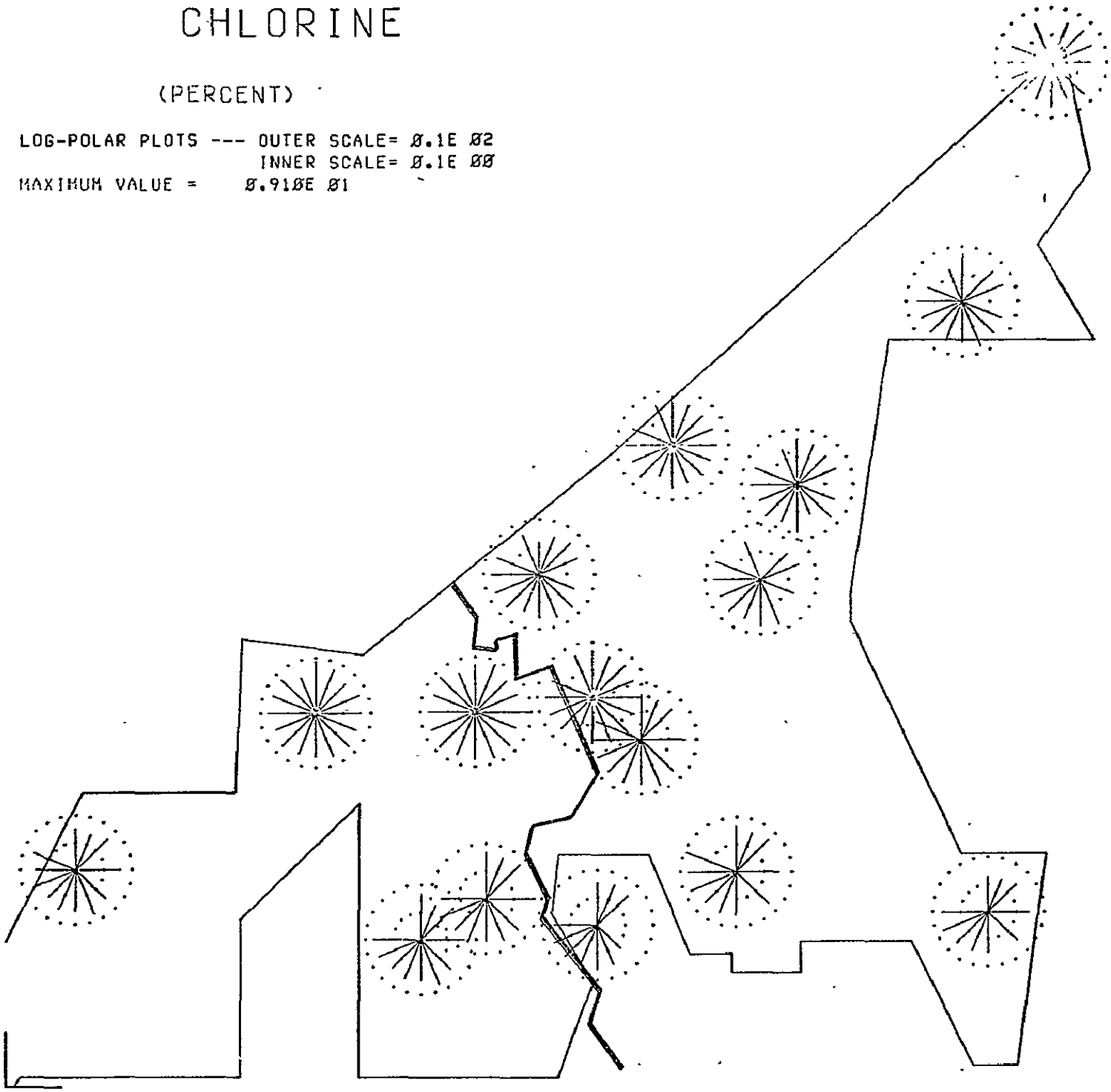
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	3	2	2	6	4	7	3	0	5
3	4	3	4	0	3	0	2	3	10	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	2	1	1	5	4	5	1	0	3
7	1	1	6	4	1	2	1	3	4	3	4	7	7	3	1	4
8	3	3	4	0	3	0	2	3	10	10	6	3	2	0	0	0
9	4	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	2	3	1	6	8	7	4	0	5
12	4	3	4	0	3	0	2	3	9	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	4	1	4	0	3	0	1	0	8	7	2	3	3	0	0	0
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	0	1	1	1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	3	3	2	2	4	5	2	0	5
21	0	1	7	2	0	1	2	2	2	2	3	6	6	4	0	3

- -1 INDICATES ESTIMATED VALUE

CHLORINE

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.91ØE Ø1



CHLORINE

(PERCENT) NUMBER OF READINGS

WIND FROM

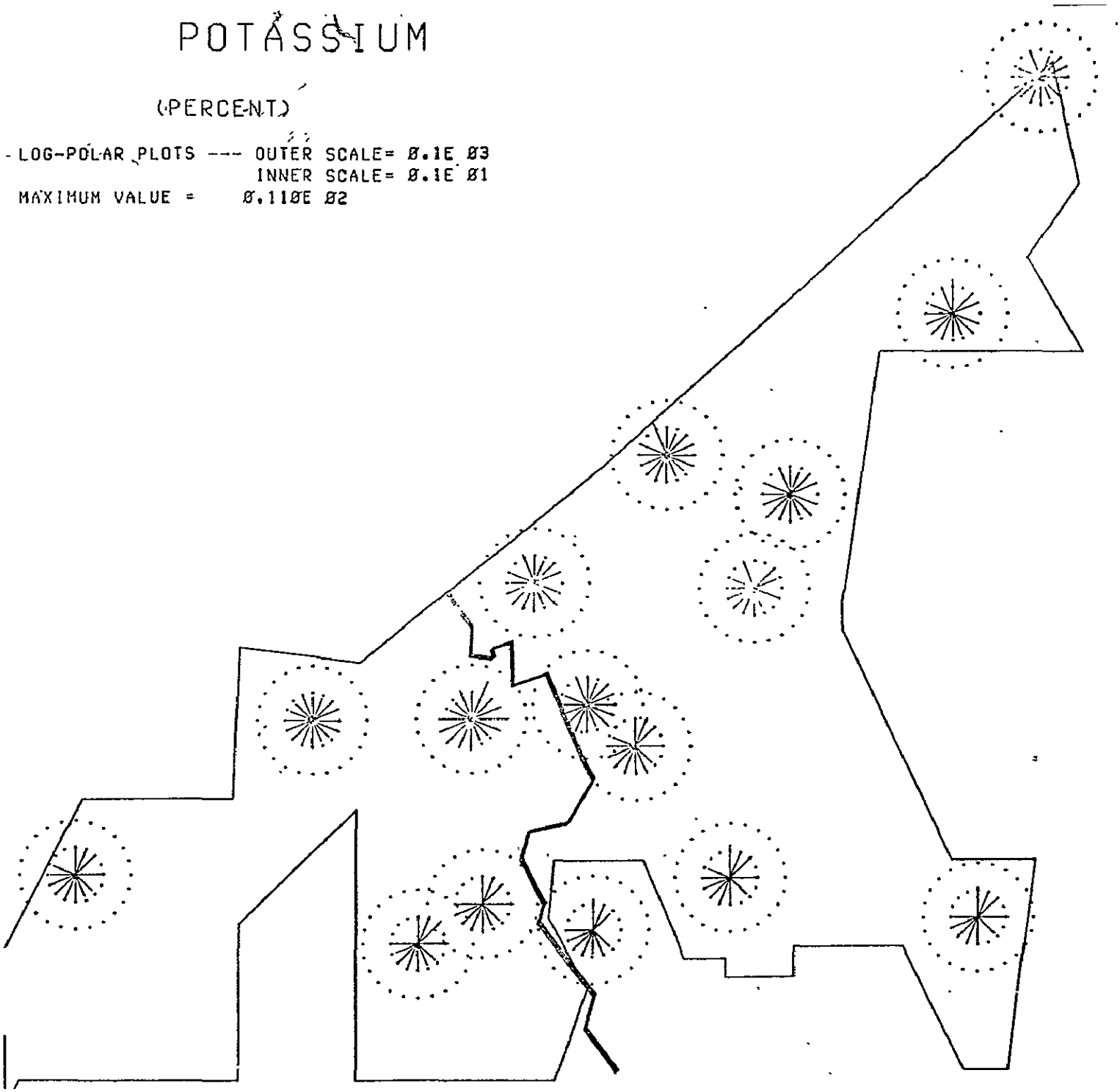
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	2	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	1Ø	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	2	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

POTASSIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.110E Ø2



POTASSIUM

(PERCENT) NUMBER OF READINGS

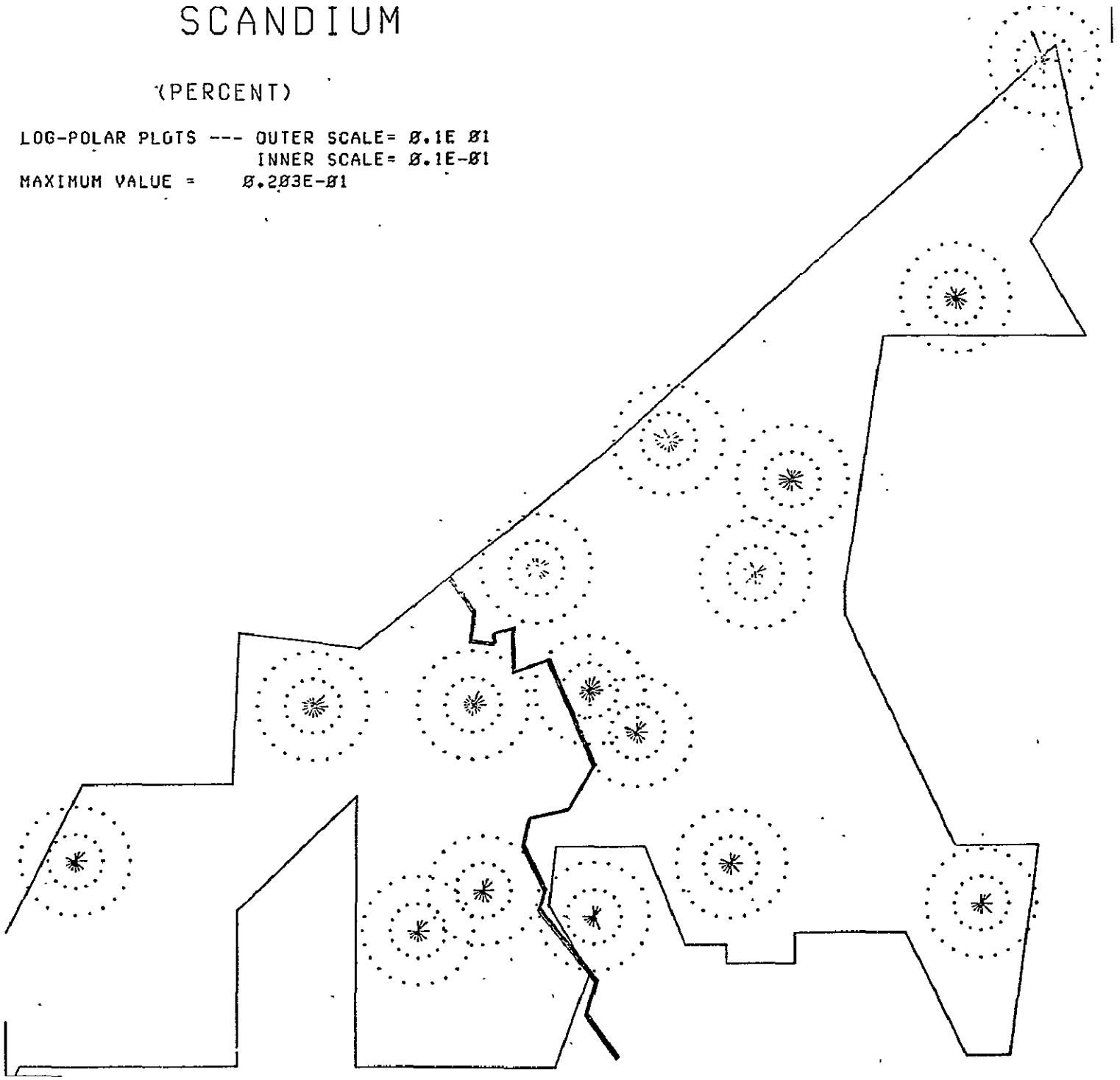
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	1	1	1	-1	1	2	5	3	3	1	Ø	4
3	3	2	2	Ø	3	Ø	-1	-1	4	7	5	1	2	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	-1	1	1	4	3	3	-1	Ø	3
5	2	2	3	Ø	3	Ø	-1	Ø	2	5	3	1	1	-1	Ø	Ø
6	1	Ø	4	3	Ø	1	1	-1	-1	1	4	2	3	-1	Ø	3
7	-1	-1	5	3	1	1	-1	-1	2	2	3	5	3	-1	-1	3
8	3	2	2	Ø	3	Ø	-1	-1	4	6	5	-1	1	Ø	Ø	Ø
9	3	1	2	Ø	3	Ø	-1	1	3	7	3	2	3	-1	Ø	Ø
10	1	-1	5	3	1	1	-1	-1	1	1	5	6	4	1	Ø	4
1[illegible]	[illegible]	2	2	Ø	3	Ø	-1	-1	4	7	5	1	3	-1	Ø	Ø

SCANDIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.2Ø3E-Ø1



SCANDIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

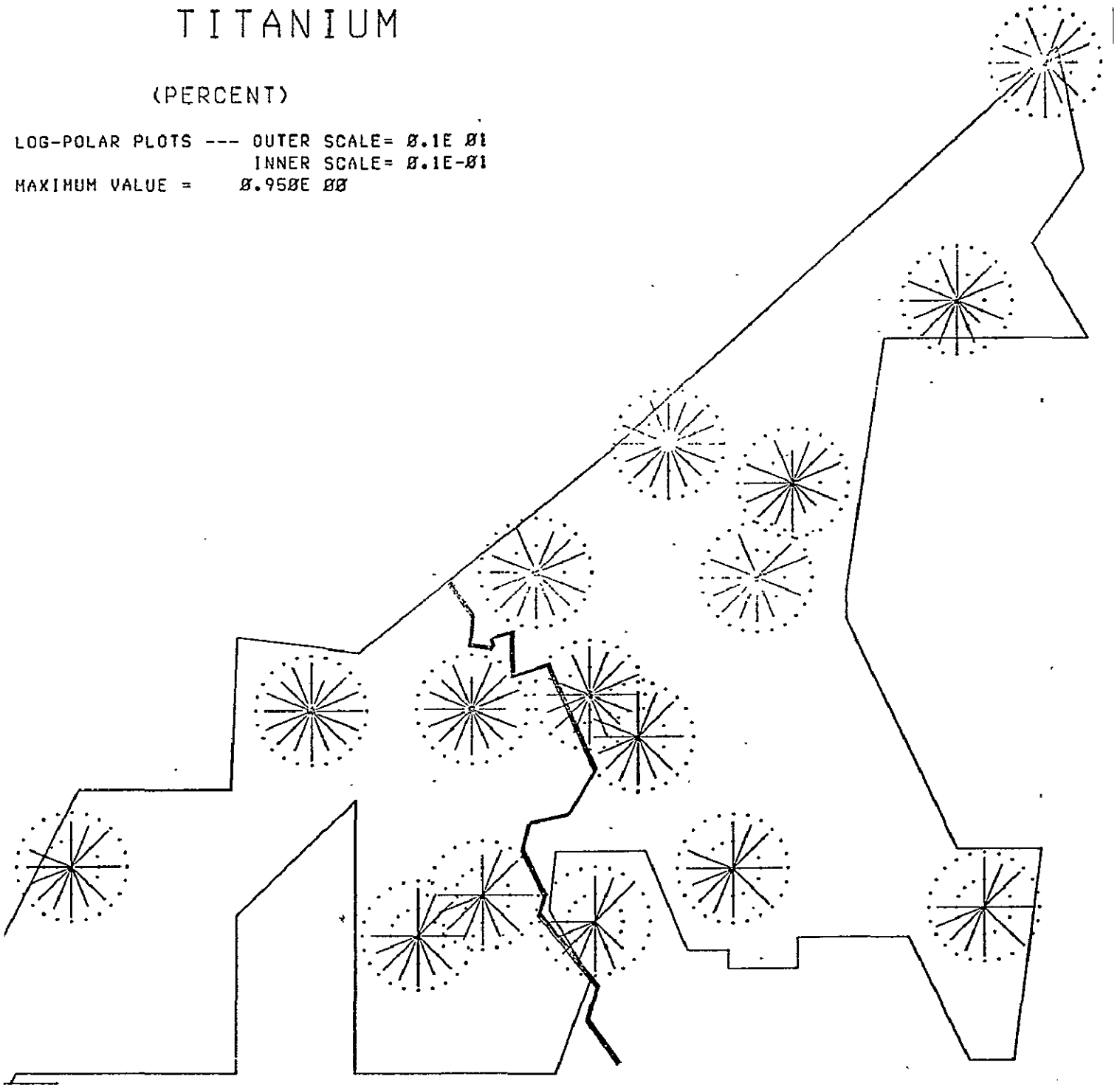
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

_ -1 INDICATES ESTIMATED VALUE

TITANIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.95ØE ØØ



TITANIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

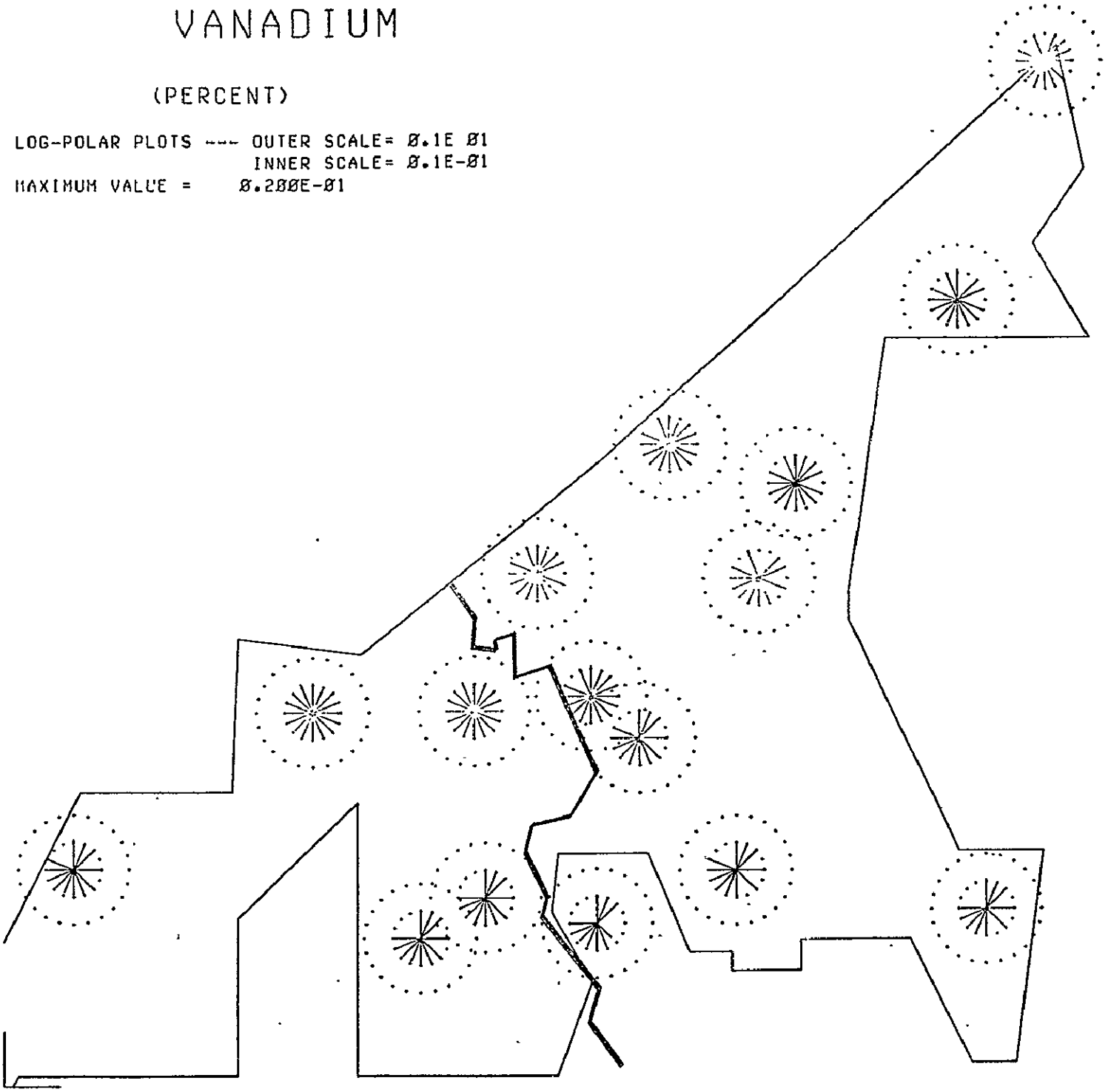
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	7	1	1	1	2	2	1	5	3	5	3	0	2
3	2	3	4	0	2	0	2	3	8	9	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	4	4	5	2	0	2
5	3	3	5	0	3	0	2	0	5	7	4	4	2	1	0	0
6	1	0	5	3	0	2	-1	1	1	1	5	4	4	1	0	3
7	1	1	8	4	1	2	1	2	3	2	3	7	6	3	1	2
8	3	3	4	0	3	0	2	2	7	7	5	4	2	0	0	0
9	2	2	4	0	2	0	1	2	7	5	2	4	2	1	0	0
10	1	1	8	3	1	2	1	1	2	1	3	8	7	4	0	2
12	3	2	3	0	3	0	2	3	7	6	5	3	2	1	0	0
13	3	3	1	0	0	0	1	1	4	6	3	4	3	0	0	0
14	1	1	3	0	3	0	1	0	7	7	2	1	3	0	0	0
15	-1	1	6	4	-1	2	1	2	2	2	1	4	8	4	1	3
17	-1	1	6	4	0	1	-1	-1	4	3	4	6	5	4	0	3
20	0	1	6	2	-1	0	1	2	3	1	2	4	4	2	0	4
21	0	1	6	2	0	1	1	2	3	2	2	5	4	4	0	2

-1 INDICATES ESTIMATED VALUE

VANADIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.2ØØE-Ø1



VANADIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

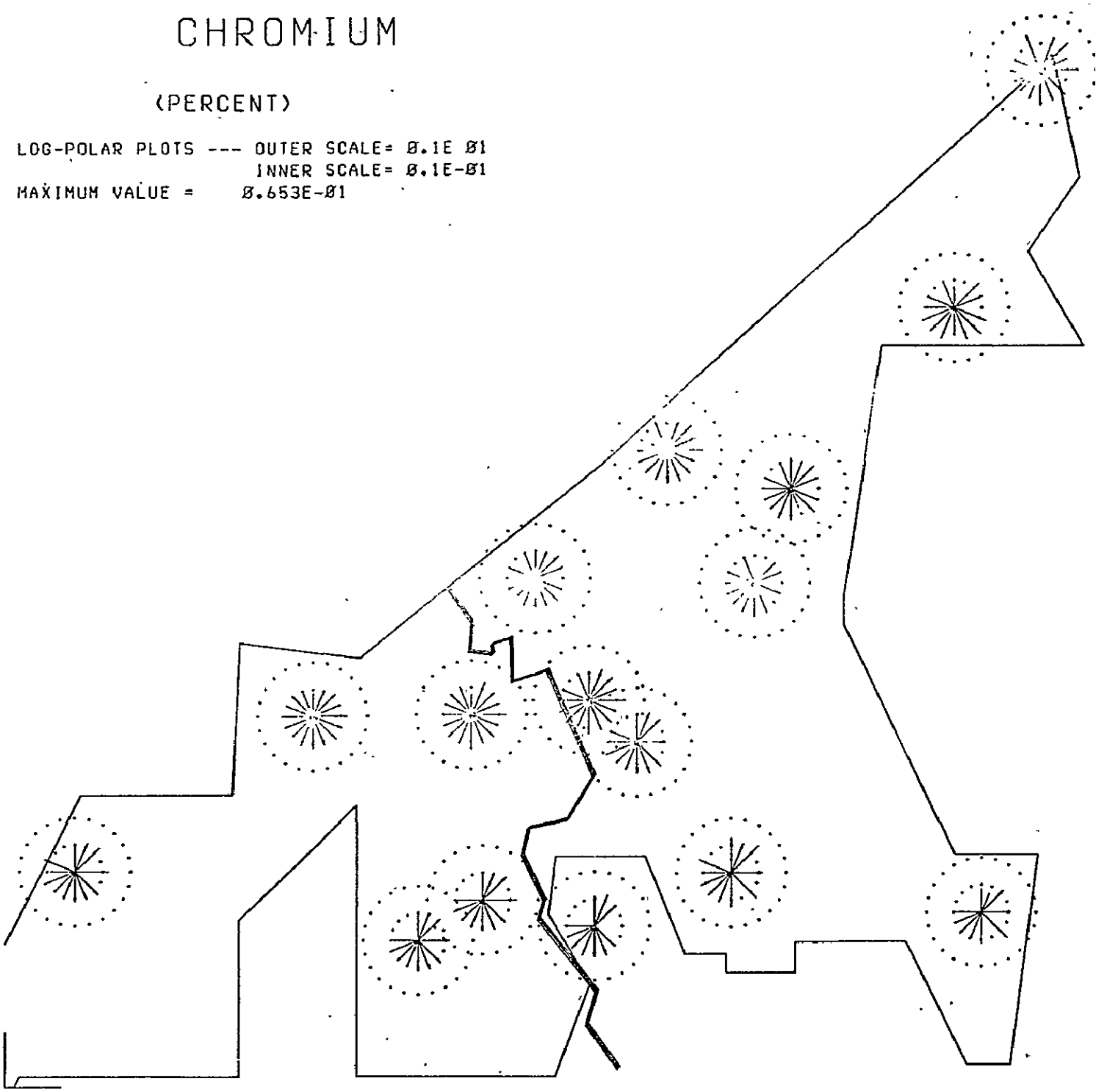
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1 -	1	1	6	4	1	1	2	3	2	2	6	4	7	3	0	5
3 -	4	3	4	0	3	0	2	3	10	11	6	5	4	0	0	0
4 -	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5 -	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6 -	1	0	5	3	0	2	1	2	1	1	5	4	5	1	0	3
7 -	1	1	6	4	1	2	1	3	4	3	4	7	7	3	1	4
8 -	3	3	4	0	3	0	2	3	10	10	6	4	2	0	0	0
9 -	4	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10 -	1	1	8	3	1	2	1	2	3	1	6	8	8	4	0	5
12 -	4	3	4	0	3	0	2	3	9	11	6	3	3	1	0	0
13 -	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14 -	4	1	4	0	3	0	1	0	8	7	2	3	3	0	0	0
15 -	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17 -	1	1	7	4	0	1	1	1	4	3	5	6	5	4	0	3
20 -	0	1	6	2	1	0	2	3	3	2	2	4	5	2	0	5
21 -	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

CHROMIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.653E-Ø1



CHROMIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

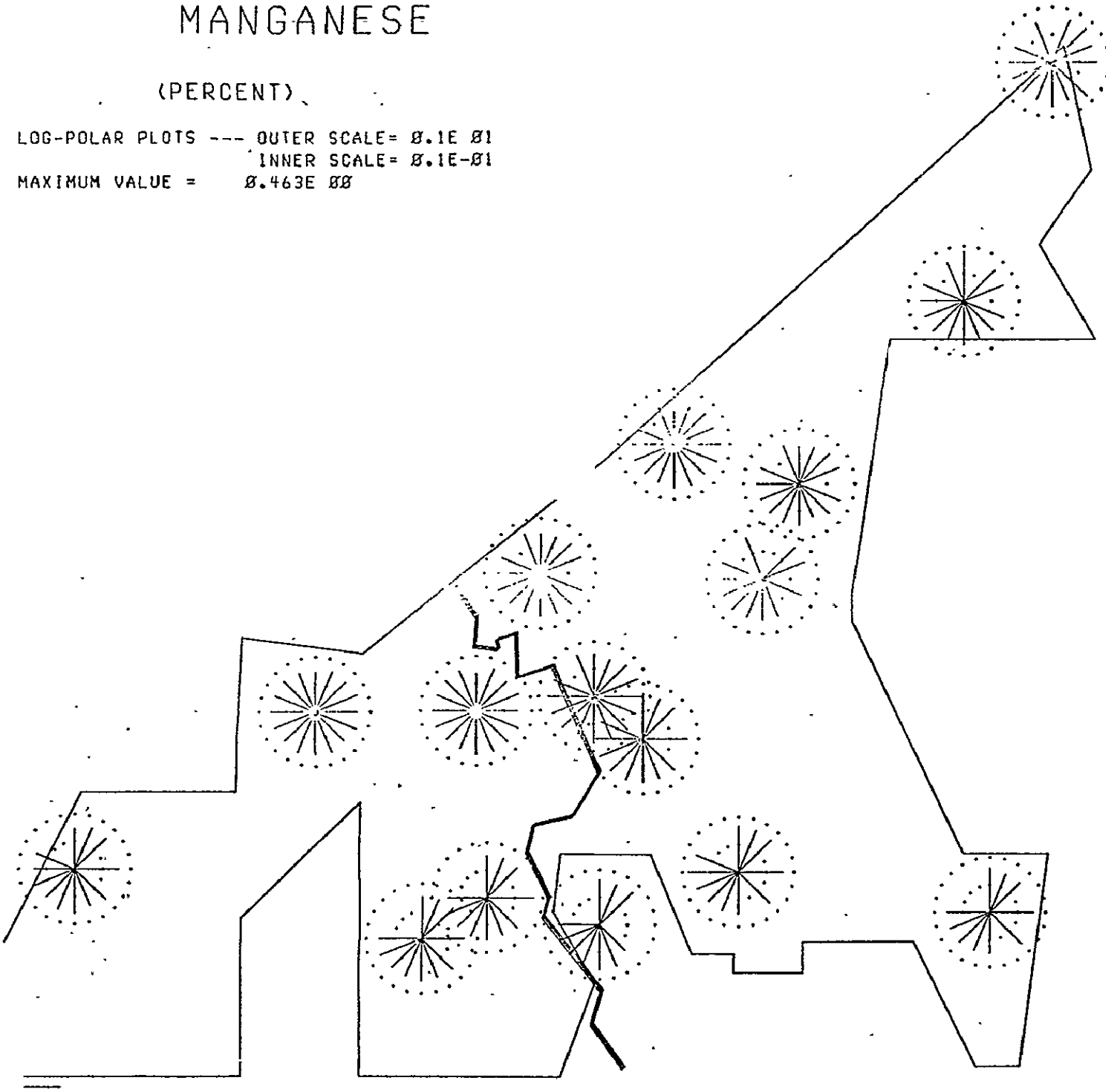
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	2	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	-1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	2	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	-1	1	8	3	1	2	1	1	3	1	6	8	8	4	0	4
12	2	3	4	0	3	0	2	3	8	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	2	1	4	0	3	0	1	0	6	5	2	3	3	0	0	0
15	-1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	4	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

MANGANESE

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.463E ØØ



MANGANESE

(PERCENT) NUMBER OF READINGS

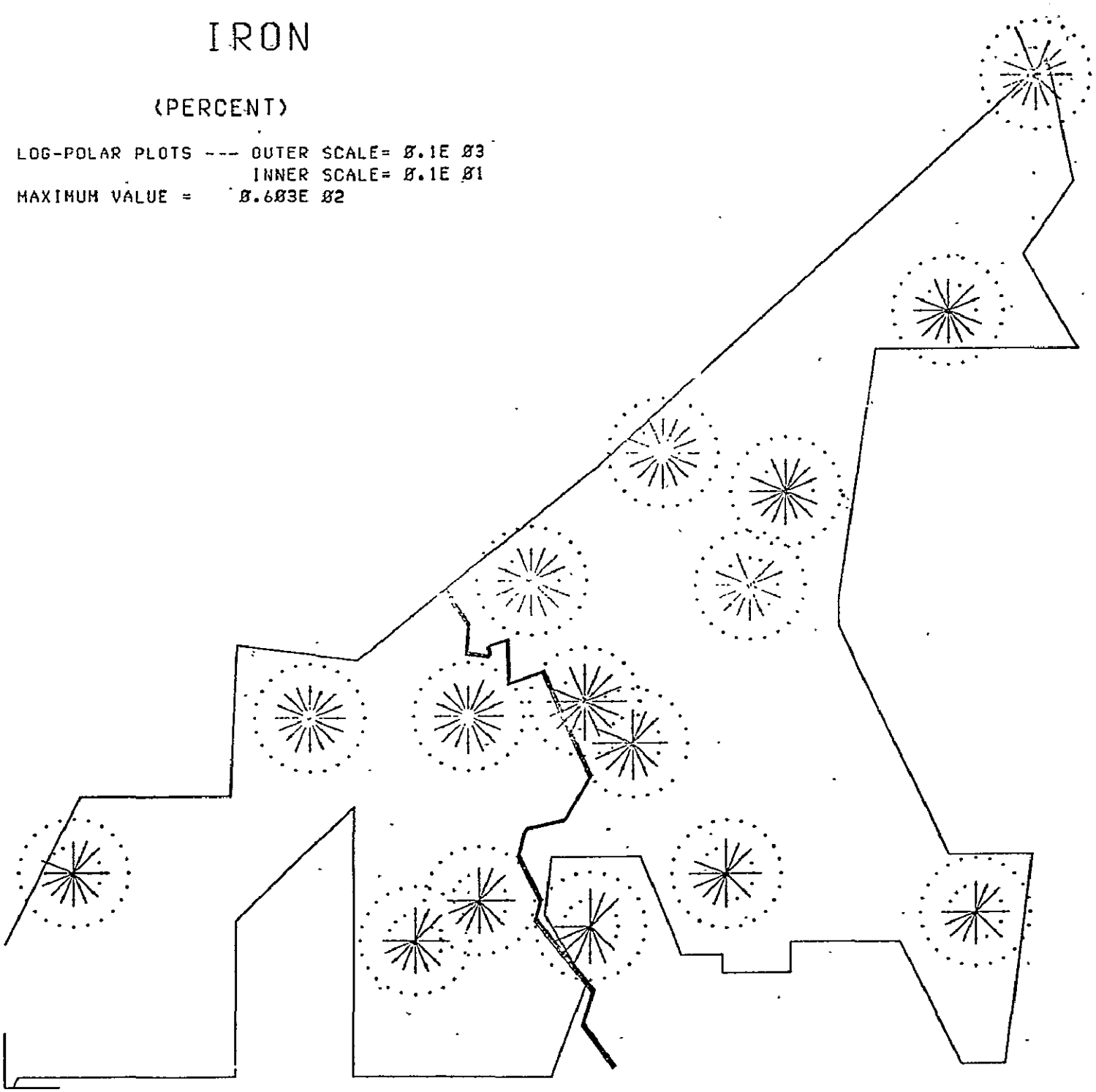
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
2	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	2	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	8	4	0	4
12	3	3	4	0	3	0	2	3	8	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
-	[illegible]	1	4	0	3	0	1	0	7	7	[illegible]	3	3	0	0	0

IRON

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.6Ø3E Ø2



IRON

(PERCENT) NUMBER OF READINGS

WIND FROM

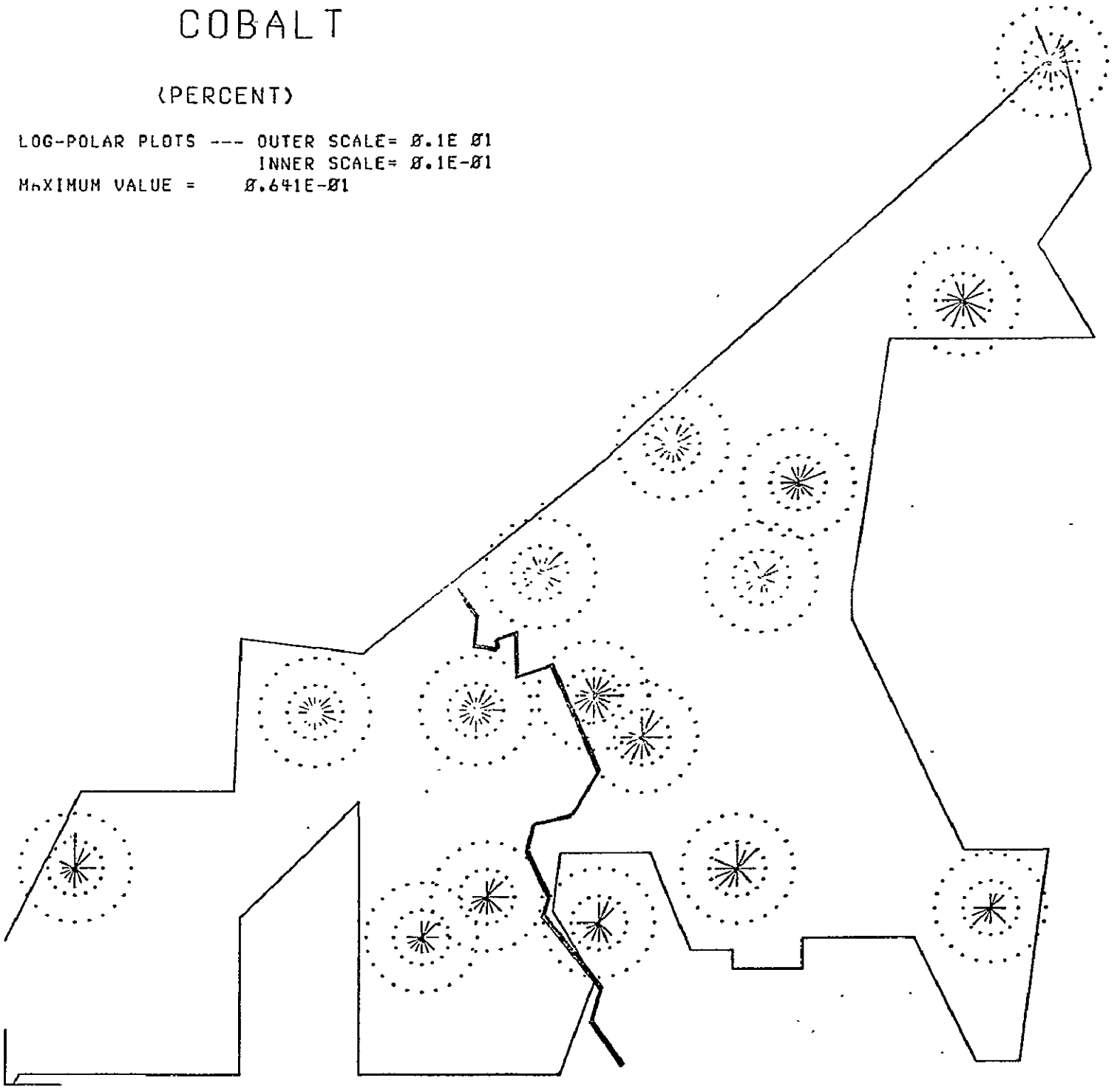
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	8	4	0	4
12	3	3	3	0	3	0	2	3	8	11	6	3	2	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	3	1	4	0	3	0	1	0	7	7	2	3	3	0	0	0
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	5	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

COBALT

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.641E-Ø1



COBALT

(PERCENT)

NUMBER OF READINGS

WIND FROM

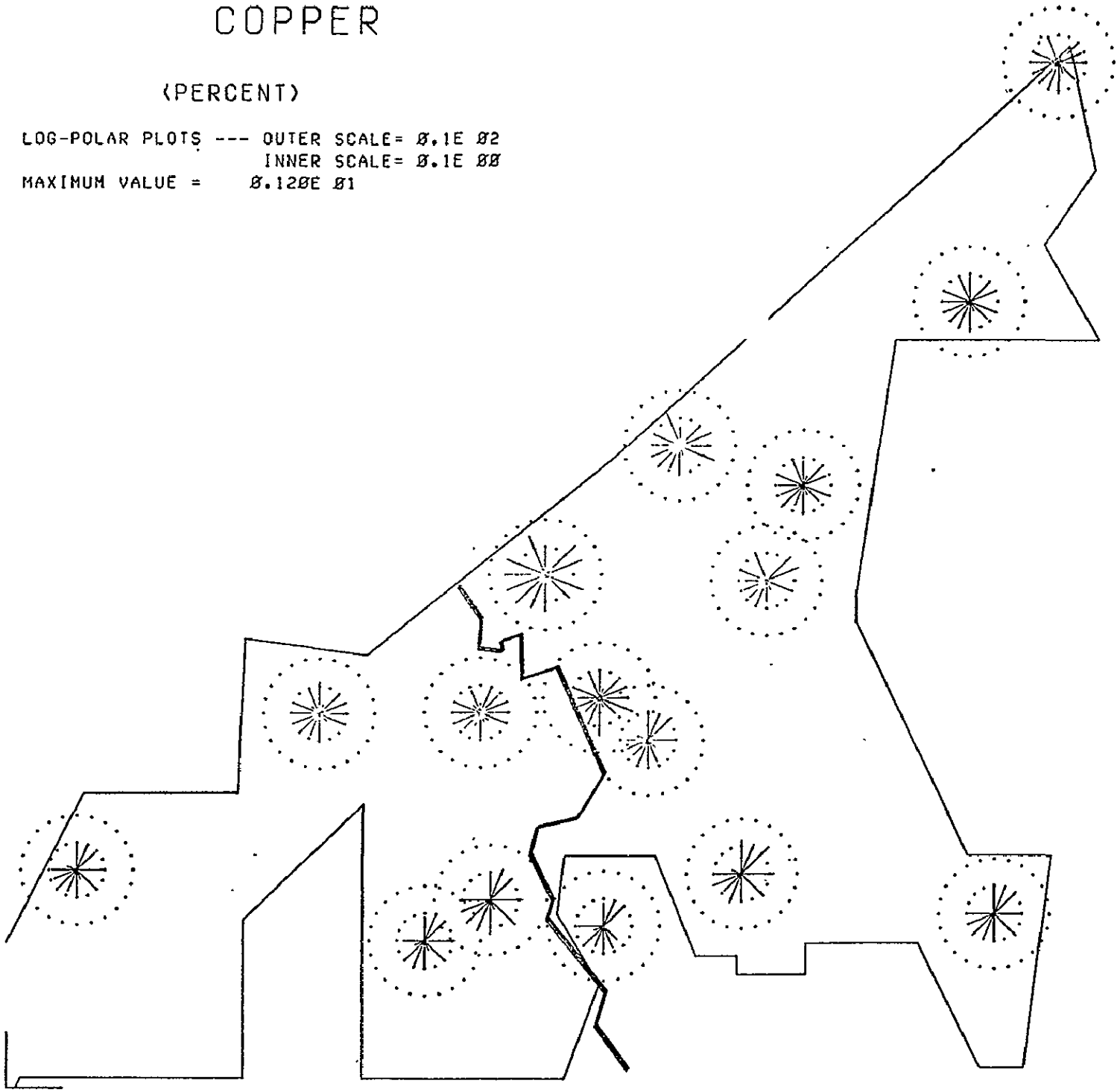
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	8	4	0	4
12	3	3	4	0	3	0	2	3	8	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	6	4	1	3	0	0	0
14	3	1	4	0	3	0	1	0	7	7	2	3	3	0	0	0
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	5	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

COPPER

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 02
INNER SCALE= 0.1E 00
MAXIMUM VALUE = 0.120E 01



COPPER

(PERCENT) NUMBER OF READINGS

WIND FROM

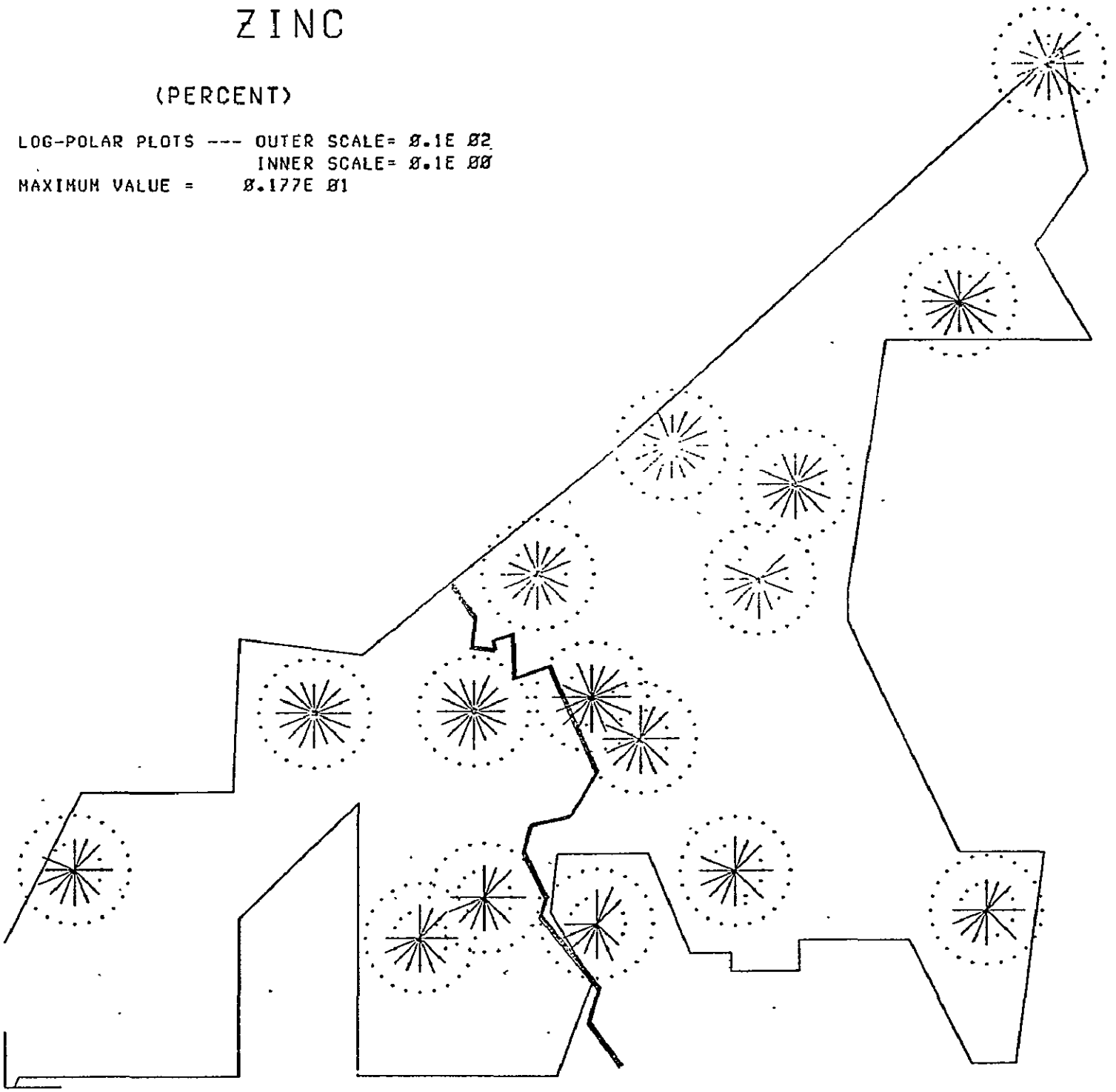
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	4	1	1	1	-1	2	2	6	3	3	1	Ø	4
3	3	2	3	Ø	3	Ø	1	-1	7	9	5	1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	2	2	4	Ø	3	Ø	1	Ø	4	7	3	1	1	-1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	-1	1	1	5	2	3	1	Ø	3
7	1	-1	6	4	1	2	-1	-1	4	2	4	5	3	1	-1	3
8	3	2	3	Ø	3	Ø	1	-1	6	8	5	-1	1	Ø	Ø	Ø
9	3	1	3	Ø	3	Ø	-1	1	5	6	2	2	3	-1	Ø	Ø
10	1	-1	6	3	1	2	-1	-1	3	1	6	6	4	2	Ø	4
12	3	2	3	Ø	3	Ø	1	-1	6	9	5	1	3	-1	Ø	Ø
13	3	3	1	Ø	Ø	Ø	1	1	4	6	4	1	3	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	6	5	1	3	2	Ø	Ø	Ø
15	-1	1	5	4	1	2	-1	-1	2	1	4	5	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	4	2	5	5	3	2	Ø	3
20	Ø	-1	4	2	1	Ø	1	-1	3	2	2	3	3	1	Ø	4
21	-1	-1	4	2	Ø	1	1	-1	3	2	3	4	3	2	Ø	3

-1 INDICATES ESTIMATED VALUE

ZINC

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.177E Ø1



ZINC

(PERCENT

NUMBER OF READINGS

WIND FROM

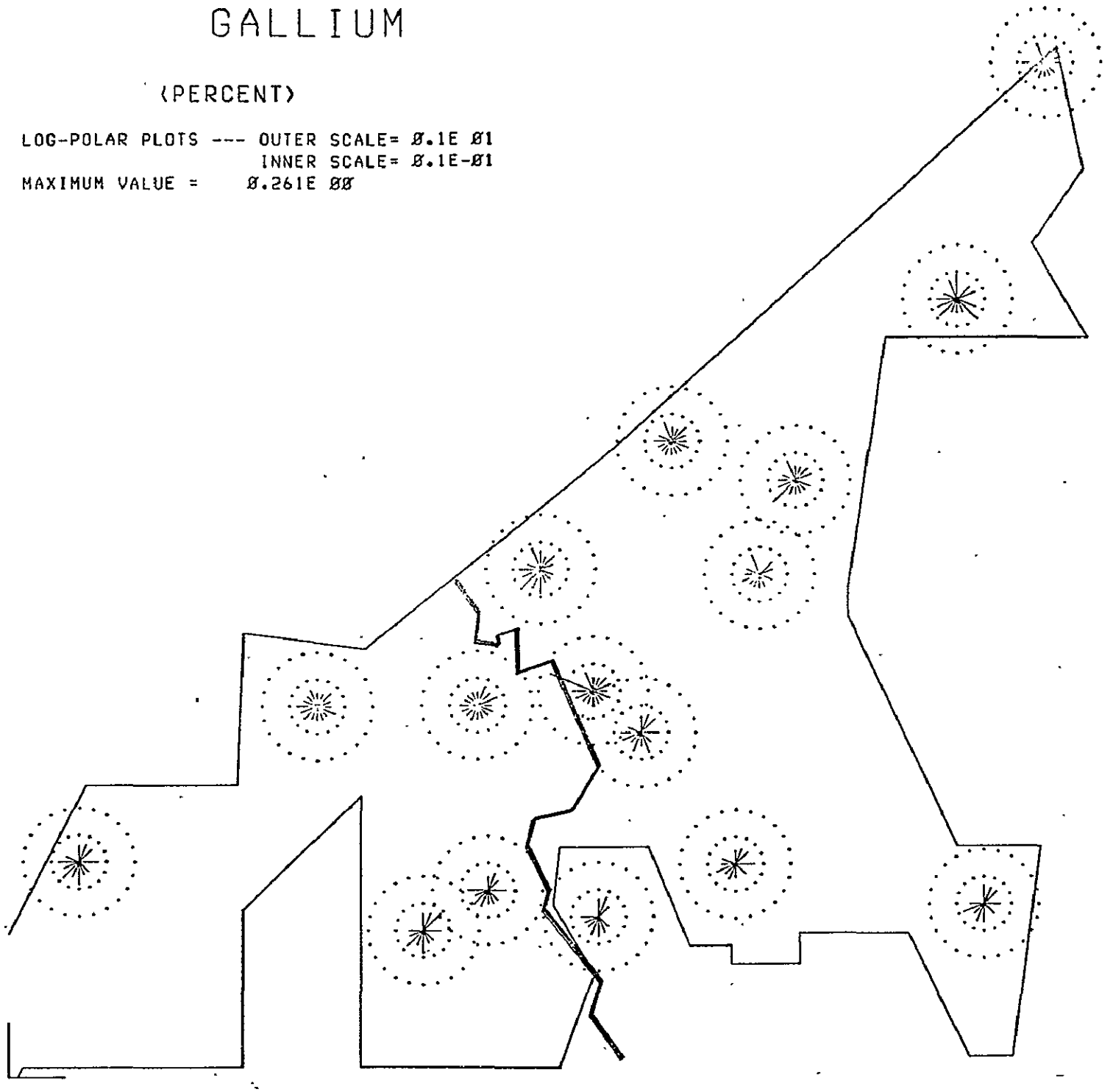
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	2	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	3
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

GALLIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.261E ØØ



GALLIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

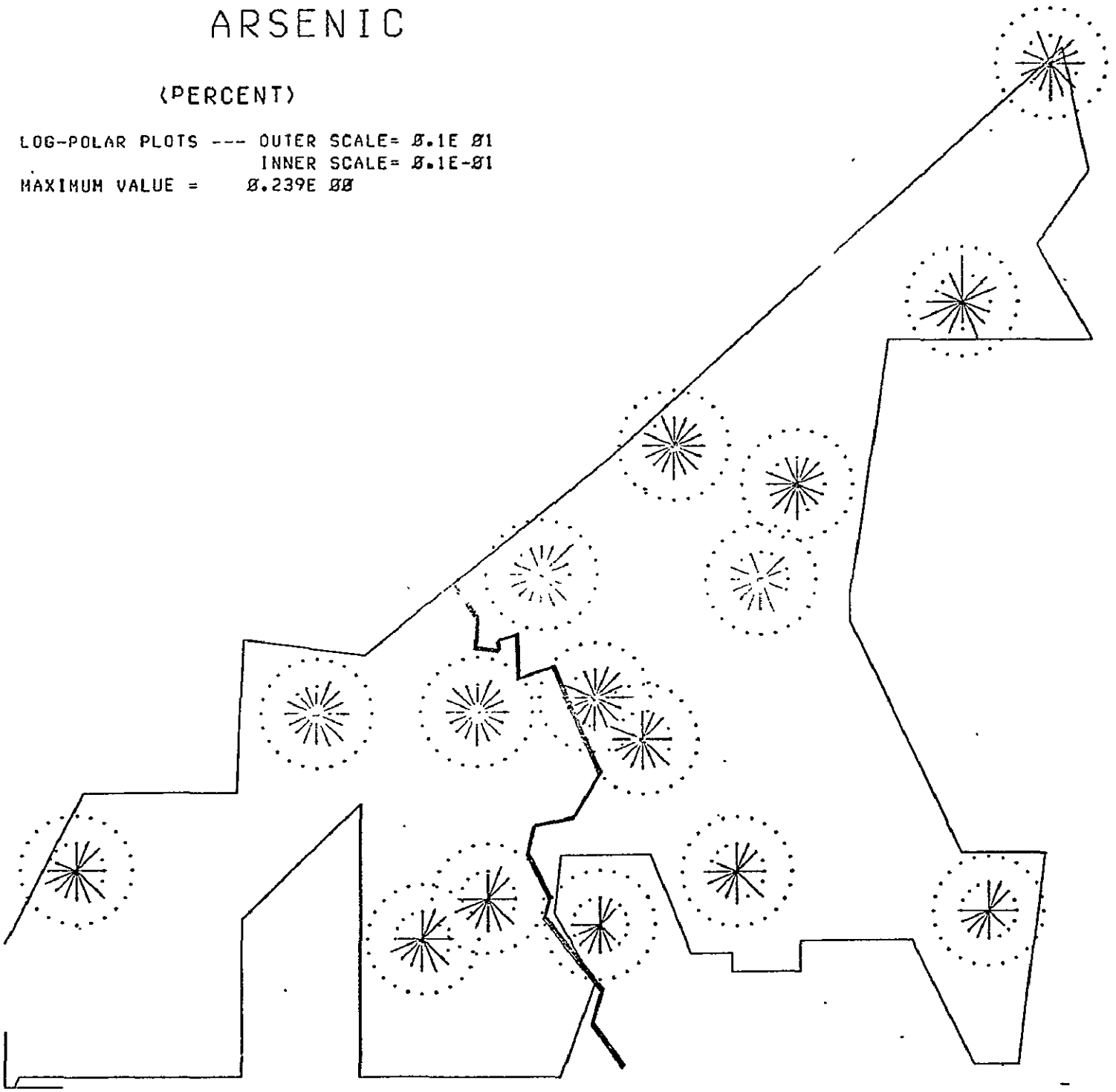
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	-1	2	1	-1	1	-1	-1	-1	-1	-1	1	1	1	Ø	2
3	-1	2	-1	Ø	2	Ø	-1	-1	-1	2	2	-1	1	Ø	Ø	Ø
4	Ø	Ø	1	-1	Ø	1	Ø	-1	-1	-1	-1	3	-1	-1	Ø	3
5	-1	1	2	Ø	2	Ø	-1	Ø	-1	2	-1	1	-1	-1	Ø	Ø
6	1	Ø	1	1	Ø	1	1	-1	-1	-1	4	2	2	-1	Ø	1
7	-1	-1	1	-1	-1	1	-1	-1	-1	1	1	3	1	-1	-1	2
8	1	1	1	Ø	2	Ø	-1	-1	1	2	1	-1	-1	Ø	Ø	Ø
9	-1	1	2	Ø	1	Ø	-1	1	-1	2	-1	2	2	-1	Ø	Ø
10	-1	-1	3	-1	-1	1	-1	-1	-1	1	-1	4	2	-1	Ø	1
12	1	1	1	Ø	2	Ø	-1	-1	2	4	1	1	1	-1	Ø	Ø
13	1	1	-1	Ø	Ø	Ø	-1	1	1	4	3	1	2	Ø	Ø	Ø
14	1	1	1	Ø	1	Ø	-1	Ø	2	2	-1	2	-1	Ø	Ø	Ø
15	-1	1	2	1	-1	1	-1	-1	-1	2	1	3	1	-1	-1	-1
17	-1	-1	2	2	Ø	1	-1	-1	-1	1	1	4	2	-1	Ø	2
20	Ø	-1	3	2	-1	Ø	-1	-1	-1	1	-1	2	2	-1	Ø	1
21	1	-1	4	-1	Ø	-1	-1	-1	1	2	2	2	1	-1	Ø	2

-1 INDICATES ESTIMATED VALUE

ARSENIC

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.239E ØØ



ARSENIC

(PERCENT) NUMBER OF READINGS

WIND FROM

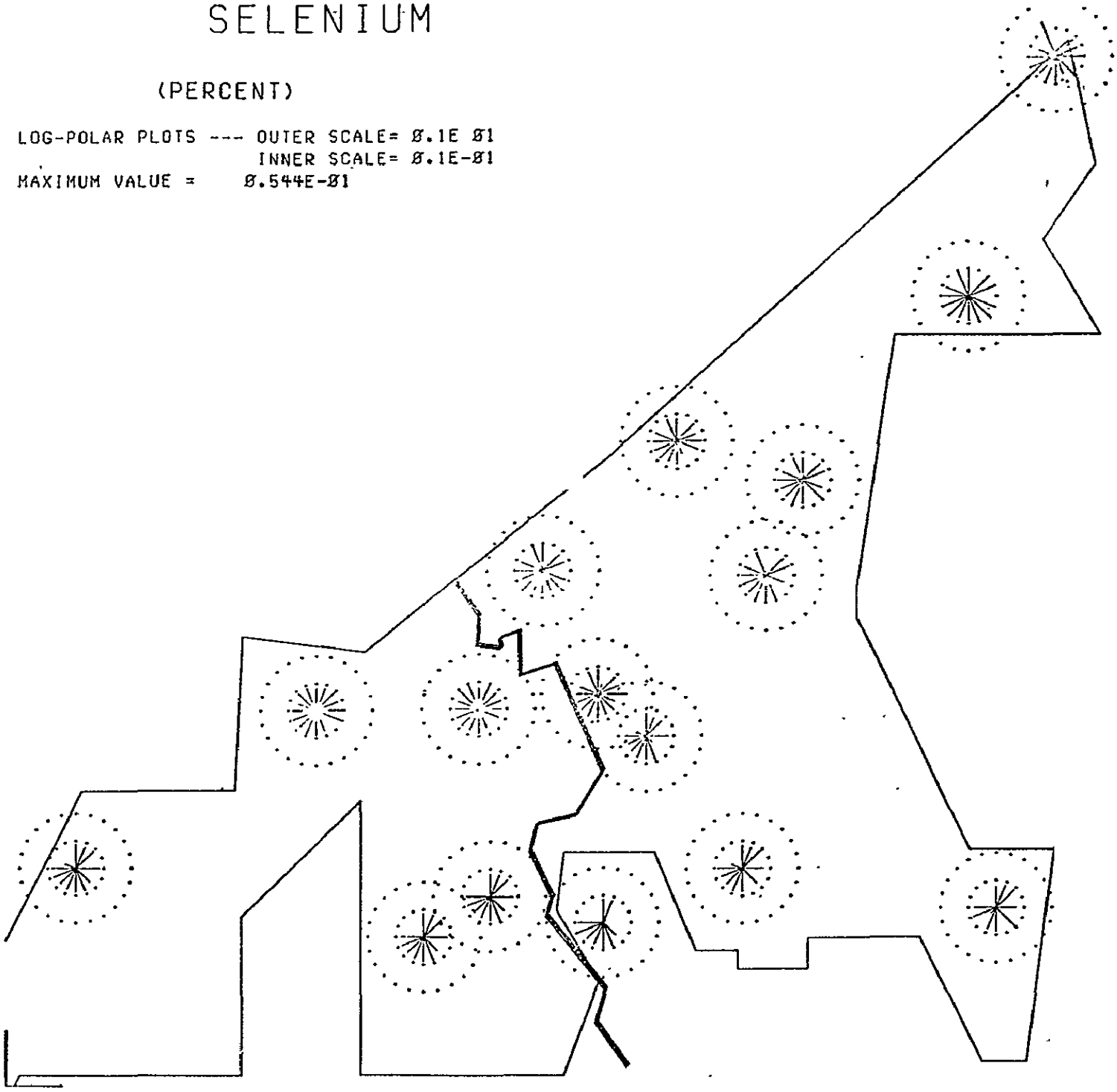
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	1	1	2	2	1	2	5	4	7	3	Ø	4
3	2	3	3	Ø	3	Ø	1	3	6	8	6	4	4	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	1	1	2	4	4	4	1	Ø	3
5	3	3	4	Ø	3	Ø	1	Ø	4	6	4	4	2	1	Ø	Ø
6	1	Ø	4	3	Ø	1	1	1	-1	1	4	4	5	-1	Ø	3
7	-1	1	7	3	1	1	1	2	2	3	3	6	7	2	-1	3
8	3	3	3	Ø	3	Ø	1	3	6	7	5	3	2	Ø	Ø	Ø
9	3	2	3	Ø	3	Ø	1	2	5	7	4	5	4	1	Ø	Ø
10	1	1	7	3	1	1	1	1	1	1	5	8	8	3	Ø	4
12	3	3	3	Ø	2	Ø	1	2	5	6	6	3	3	-1	Ø	Ø
13	3	4	-1	Ø	Ø	Ø	-1	1	2	6	4	2	4	Ø	Ø	Ø
14	2	1	3	Ø	3	Ø	-1	Ø	4	5	2	3	3	Ø	Ø	Ø
15	1	2	7	3	1	1	1	2	2	3	4	7	6	3	1	3
17	1	1	6	3	Ø	1	1	-1	1	3	4	6	5	3	Ø	3
20	Ø	1	6	2	1	Ø	2	2	1	2	1	4	5	2	Ø	4
21	1	1	7	1	Ø	-1	2	2	2	2	2	6	6	2	Ø	3

-1 INDICATES ESTIMATED VALUE

SELENIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.544E-Ø1



SELENIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

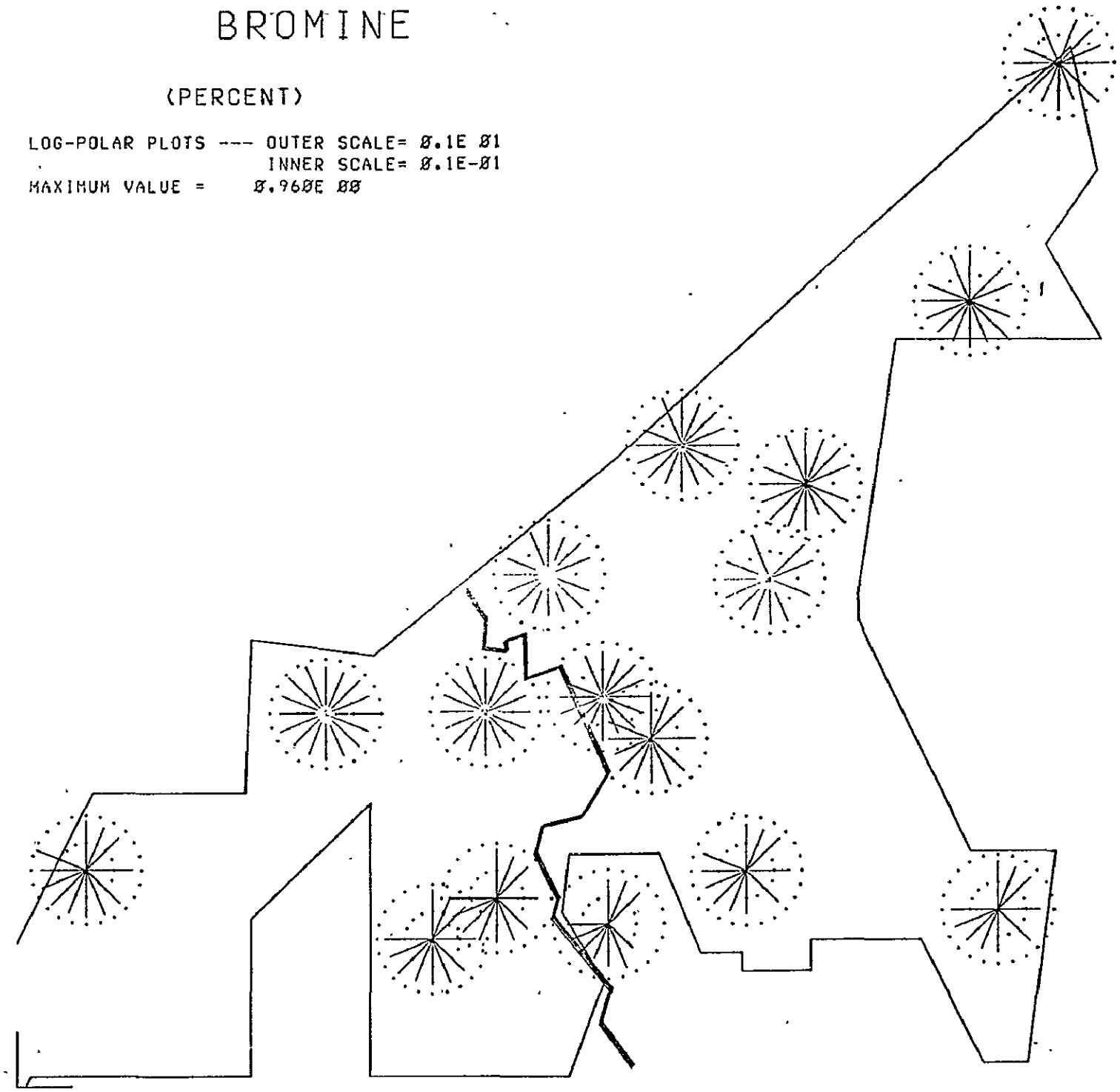
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	2	0	1	1	1	1	1	5	4	5	1	0	2
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	7	4	0	4
12	3	3	4	0	3	0	2	3	8	11	6	3	3	1	0	0
13	3	4	-1	0	0	0	1	1	3	5	3	3	3	0	0	0
14	3	1	4	0	3	0	1	0	7	7	1	3	3	0	0	0
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	5	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

BROMINE

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.96ØE ØØ



BROMINE

(PERCENT) NUMBER OF READINGS

WIND FROM

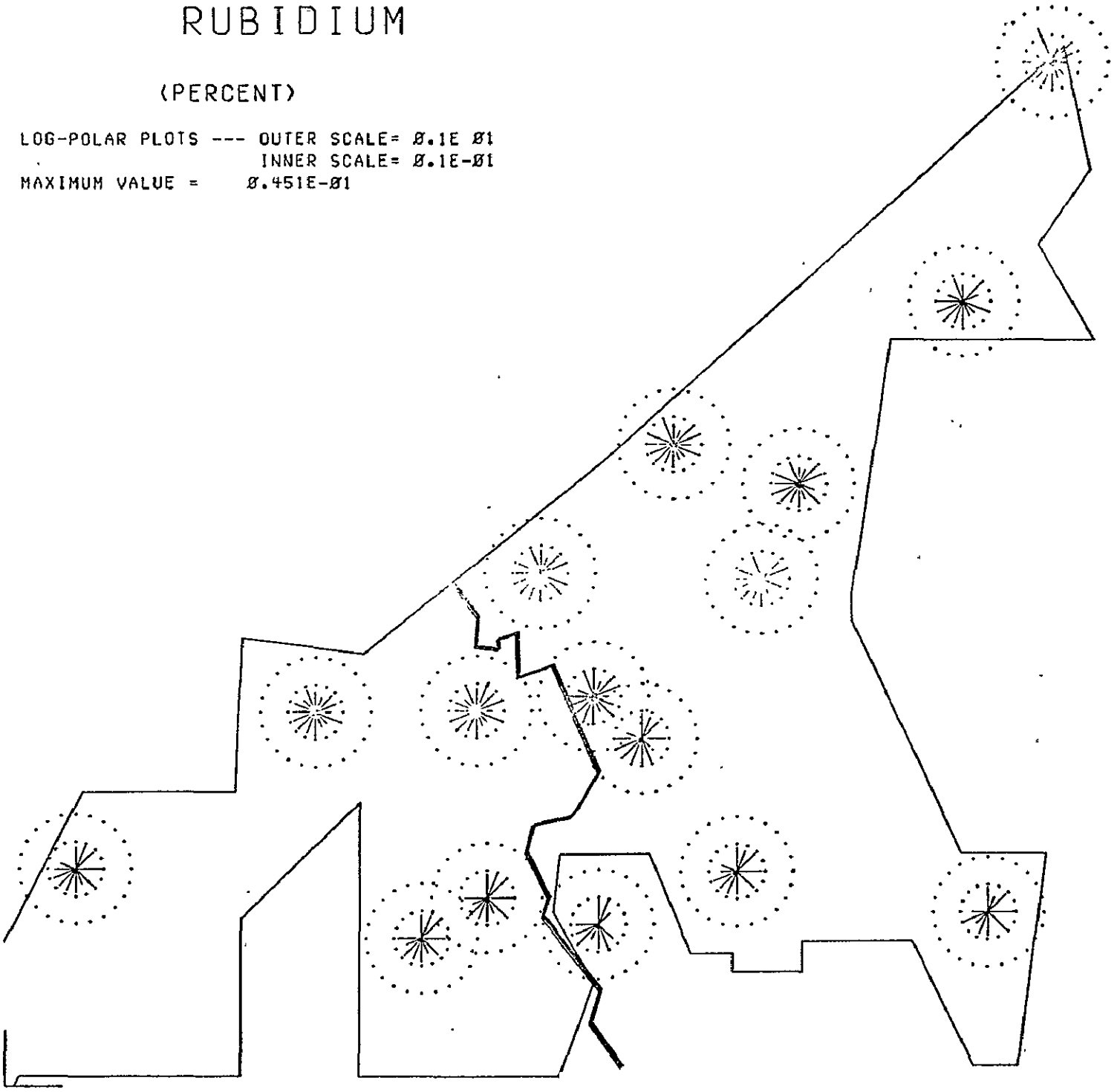
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	3	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	1	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

RUBIDIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.451E-Ø1



RUBIDIUM

(PERCENT)

NUMBER OF READINGS

WIND FROM

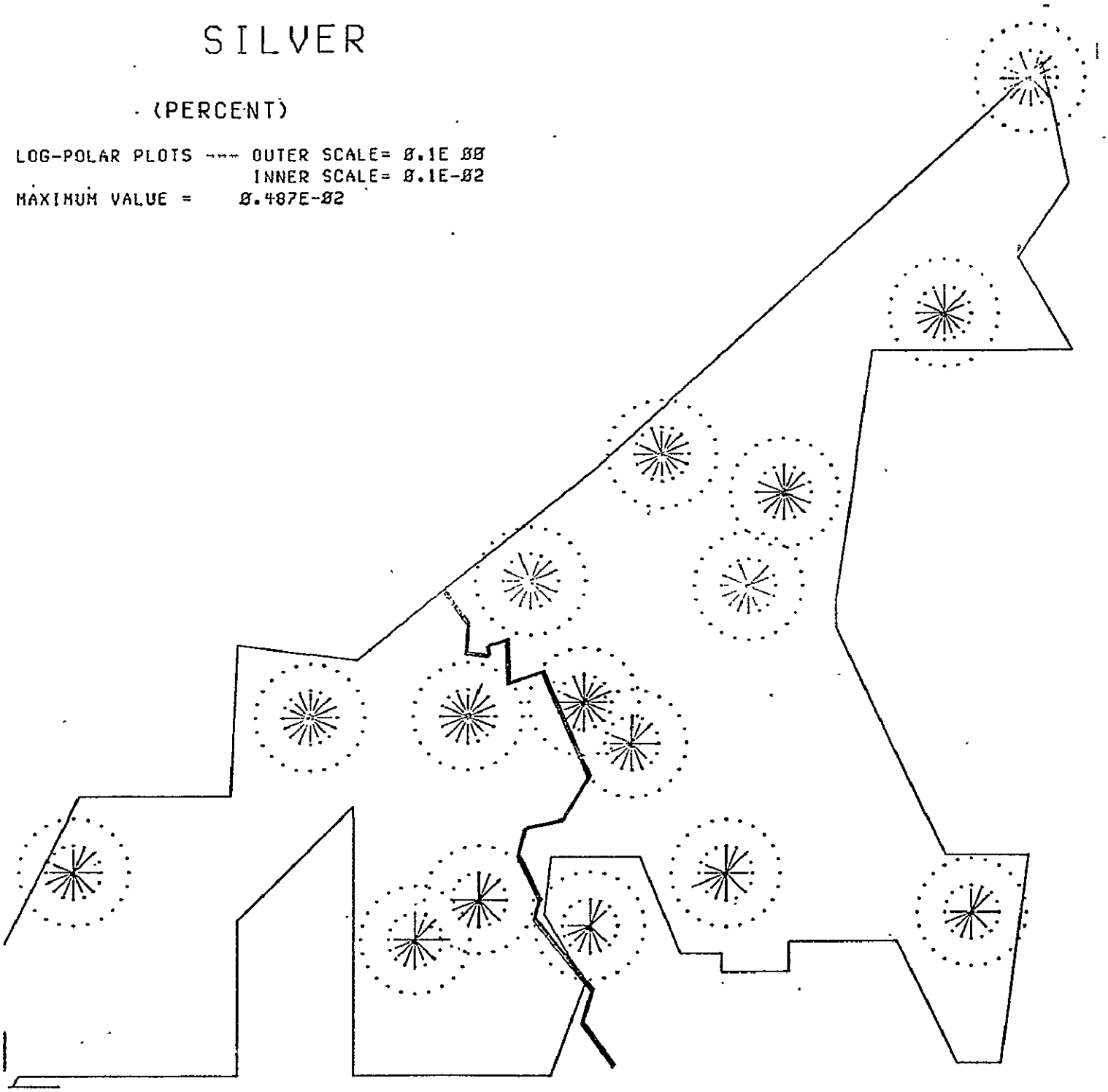
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	-1	1	1	-1	1	2	6	2	2	-1	Ø	4
3	3	2	2	Ø	3	Ø	1	-1	6	7	4	-1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	4	2	3	1	Ø	3
5	1	2	3	Ø	3	Ø	1	Ø	4	5	1	1	-1	-1	Ø	Ø
6	-1	Ø	4	-1	Ø	1	-1	-1	1	1	2	1	2	-1	Ø	2
7	1	-1	5	3	-1	2	-1	-1	3	2	4	4	1	1	-1	3
8	3	1	2	Ø	3	Ø	1	-1	6	7	4	-1	1	Ø	Ø	Ø
9	1	1	3	Ø	3	Ø	-1	1	4	8	3	1	2	-1	Ø	Ø
10	1	-1	6	2	-1	1	-1	-1	2	1	6	5	4	1	Ø	4
12	2	1	2	Ø	3	Ø	1	-1	6	6	4	1	2	-1	Ø	Ø
13	2	2	-1	Ø	Ø	Ø	1	1	2	-1	1	1	1	Ø	Ø	Ø
14	2	-1	4	Ø	3	Ø	1	Ø	5	6	-1	2	-1	Ø	Ø	Ø
15	1	1	5	4	-1	2	-1	-1	1	2	4	4	4	1	-1	3
17	1	-1	5	4	Ø	-1	1	-1	3	2	5	4	2	1	Ø	3
20	Ø	-1	3	2	-1	Ø	-1	-1	2	1	2	1	1	-1	Ø	3
21	1	-1	5	1	Ø	1	1	-1	3	2	2	1	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

SILVER

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 00
INNER SCALE= 0.1E-02
MAXIMUM VALUE = 0.487E-02



SILVER

(PERCENT) NUMBER OF READINGS

WIND FLOW

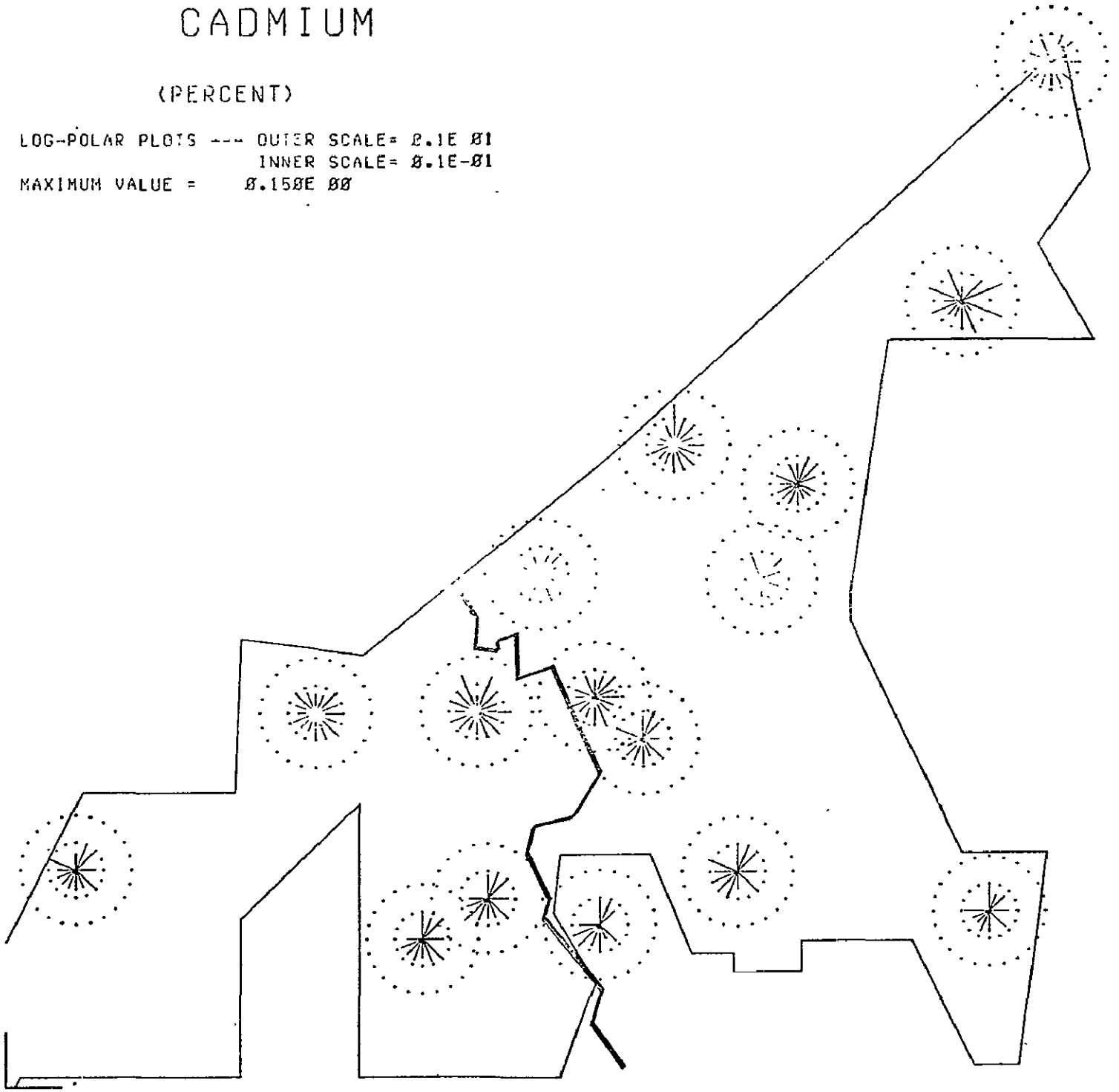
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	-1	-1	1	-1	1	2	3	-1	3	-1	Ø	2
3	2	1	2	Ø	2	Ø	1	-1	5	5	2	1	2	Ø	Ø	Ø
4	Ø	Ø	1	-1	Ø	2	Ø	-1	1	1	3	2	2	1	Ø	1
5	2	2	4	Ø	1	Ø	1	Ø	1	6	-1	1	-1	-1	Ø	Ø
6	1	Ø	2	-1	Ø	-1	-1	-1	-1	1	3	2	2	-1	Ø	1
7	1	-1	3	3	-1	2	-1	1	3	1	3	3	3	-1	-1	3
8	1	-1	3	Ø	2	Ø	1	-1	5	3	1	-1	-1	Ø	Ø	Ø
9	1	-1	2	Ø	2	Ø	-1	1	3	6	1	-1	-1	-1	Ø	Ø
10	1	-1	6	2	-1	1	-1	-1	-1	1	6	4	3	1	Ø	3
12	1	2	2	Ø	1	Ø	1	-1	4	6	4	1	2	-1	Ø	Ø
13	2	2	-1	Ø	Ø	Ø	1	1	3	2	-1	1	-1	Ø	Ø	Ø
14	1	1	3	Ø	1	Ø	-1	Ø	2	2	-1	1	-1	Ø	Ø	Ø
15	-1	1	2	1	-1	2	-1	-1	1	2	4	4	4	1	-1	1
17	1	-1	1	-1	Ø	1	1	-1	1	1	4	4	2	1	Ø	2
20	Ø	-1	3	1	-1	Ø	1	-1	1	1	2	-1	2	-1	Ø	2
21	Ø	-1	5	2	Ø	1	1	-1	3	2	3	2	3	1	Ø	3

INDICATES ESTIMATED VALUE

CADMIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= 2.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.15ØE ØØ



CADMIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

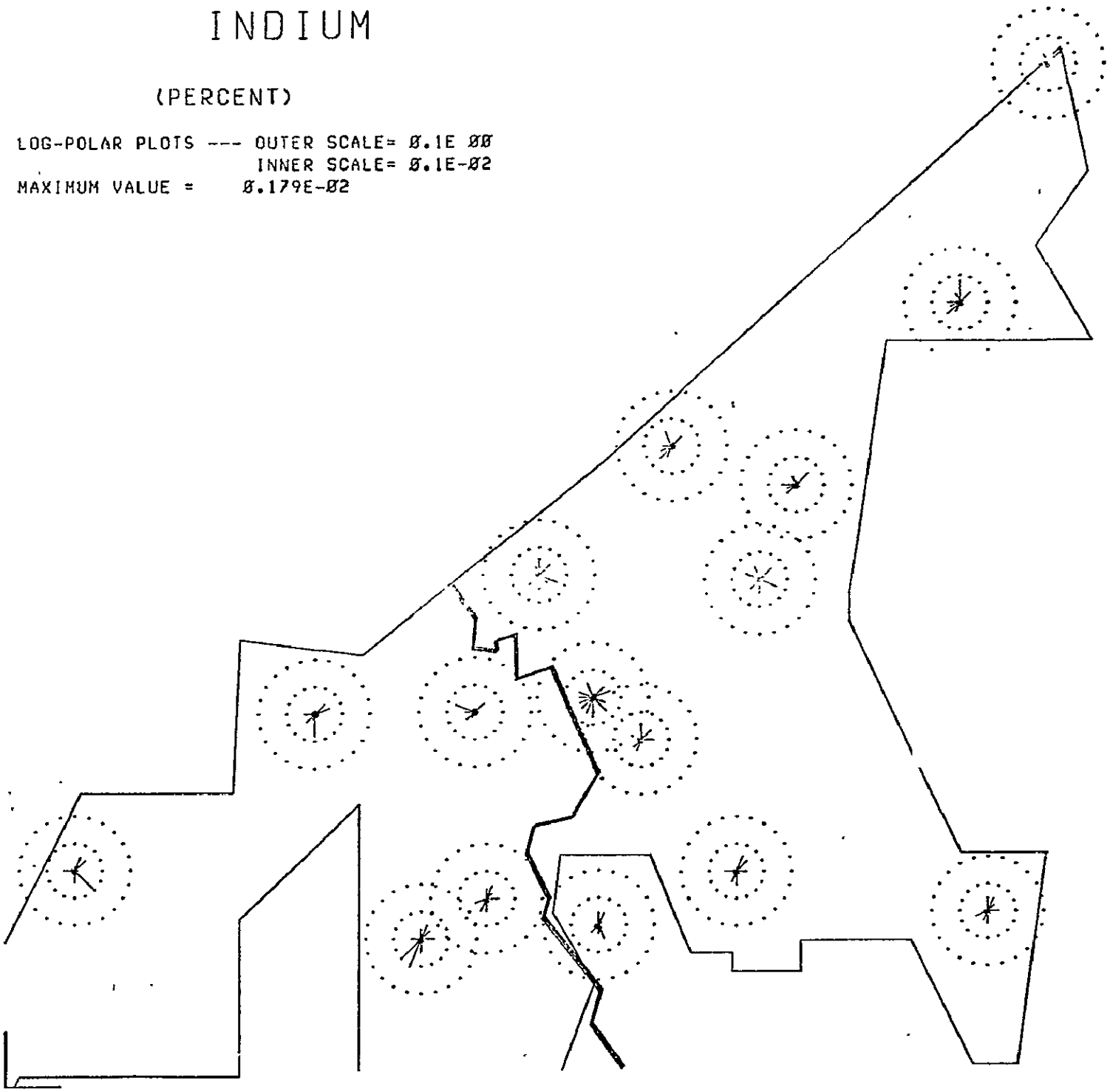
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	3	2	2	5	4	7	3	Ø	4
3	4	3	4	Ø	3	Ø	2	3	1Ø	11	6	5	3	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	2	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	1Ø	1Ø	6	3	2	Ø	Ø	Ø
9	4	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	2	3	1	6	8	7	4	Ø	5
12	4	3	4	Ø	3	Ø	2	3	9	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	4	1	4	Ø	3	Ø	1	Ø	8	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	Ø	1	1	1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	3	3	2	2	4	5	2	Ø	5
21	Ø	1	7	2	Ø	1	2	2	2	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

INDIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E ØØ
INNER SCALE= Ø.1E-Ø2
MAXIMUM VALUE = Ø.179E-Ø2



INDIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

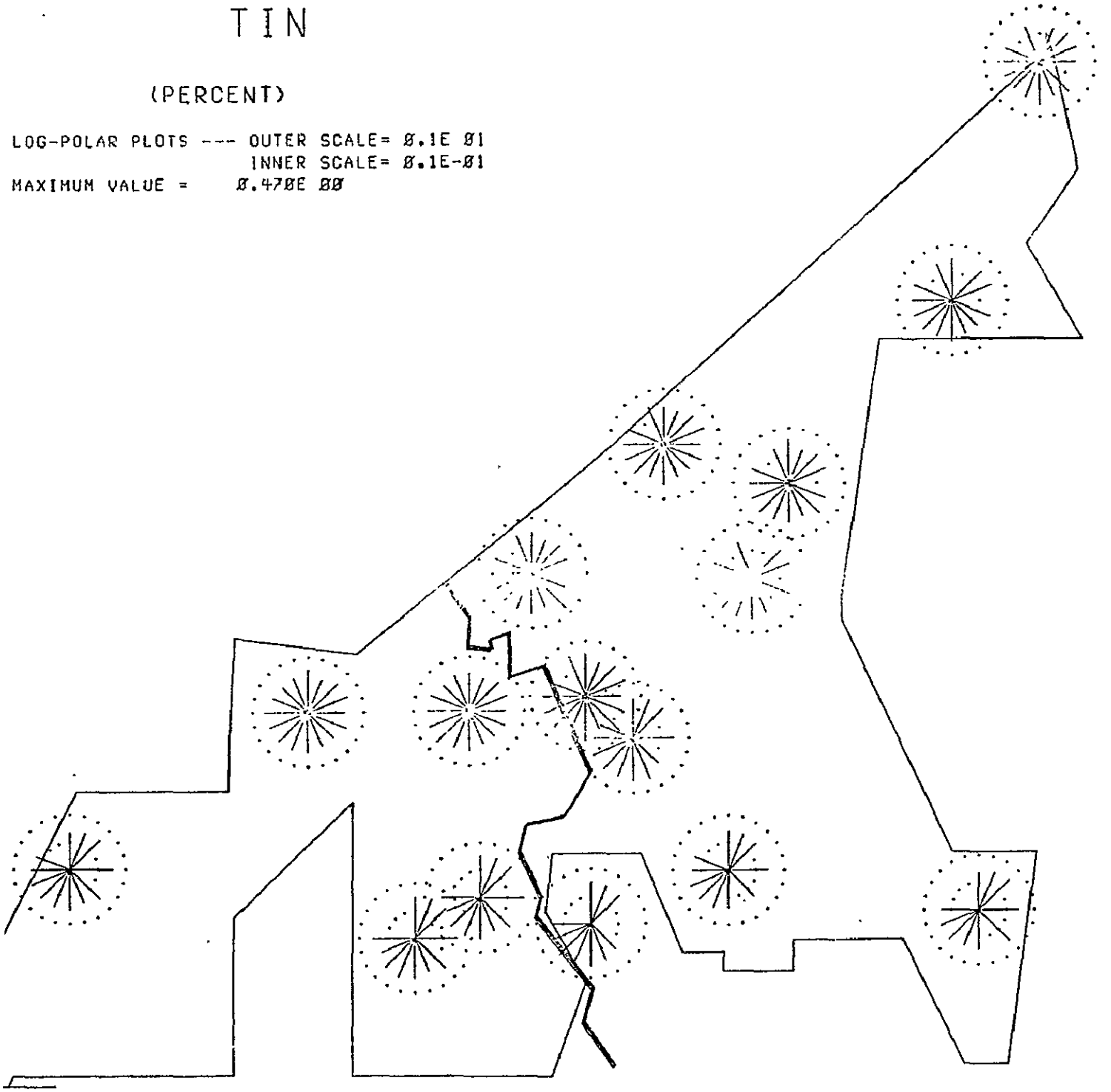
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	-1	3	2	-1	1	1	-1	1	1	4	2	1	1	0	2
3	2	2	1	0	2	0	-1	-1	1	2	-1	1	-1	0	0	0
4	0	0	1	-1	0	1	0	-1	1	-1	2	1	1	1	0	1
5	-1	1	1	0	1	0	-1	0	1	1	-1	-1	1	-1	0	0
6	1	0	1	-1	0	-1	-1	-1	-1	1	1	1	1	-1	0	1
7	-1	-1	[illegible]	1	-1	-	;	;	:	:	1	-1	1	-1	-1	-1
8	1	1	2	0	2	0	-1	-1	1	2	2	-1	1	0	0	0
9	1	-1	1	0	2	0	-1	-1	-1	2	1	-1	-1	-1	0	0
10	-1	-1	4	-1	-1	-1	-1	-1	-1	1	3	3	1	-1	0	1
12	-1	1	2	0	-1	0	1	-1	2	1	-1	-1	1	-1	0	0
13	1	3	-1	0	0	0	-1	1	2	2	1	1	-1	0	0	0
14	1	1	2	0	1	0	-1	0	3	3	-1	2	-1	0	0	0
15	-1	-1	3	-1	-1	-1	-1	-1	-1	1	2	-1	1	1	-1	-1
17	-1	-1	4	-1	0	-1	-1	-1	-1	-1	1	2	3	-1	0	1
20	0	-1	2	1	-1	0	-1	-1	-1	1	-1	-1	2	-1	0	2
21	1	-1	2	-1	0	1	1	-1	2	1	1	-1	1	-1	0	1

-1 INDICATES ESTIMATED VALUE

TIN

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.47ØE ØØ



TIN

(PERCENT) NUMBER OF READINGS

WIND DIRECTION

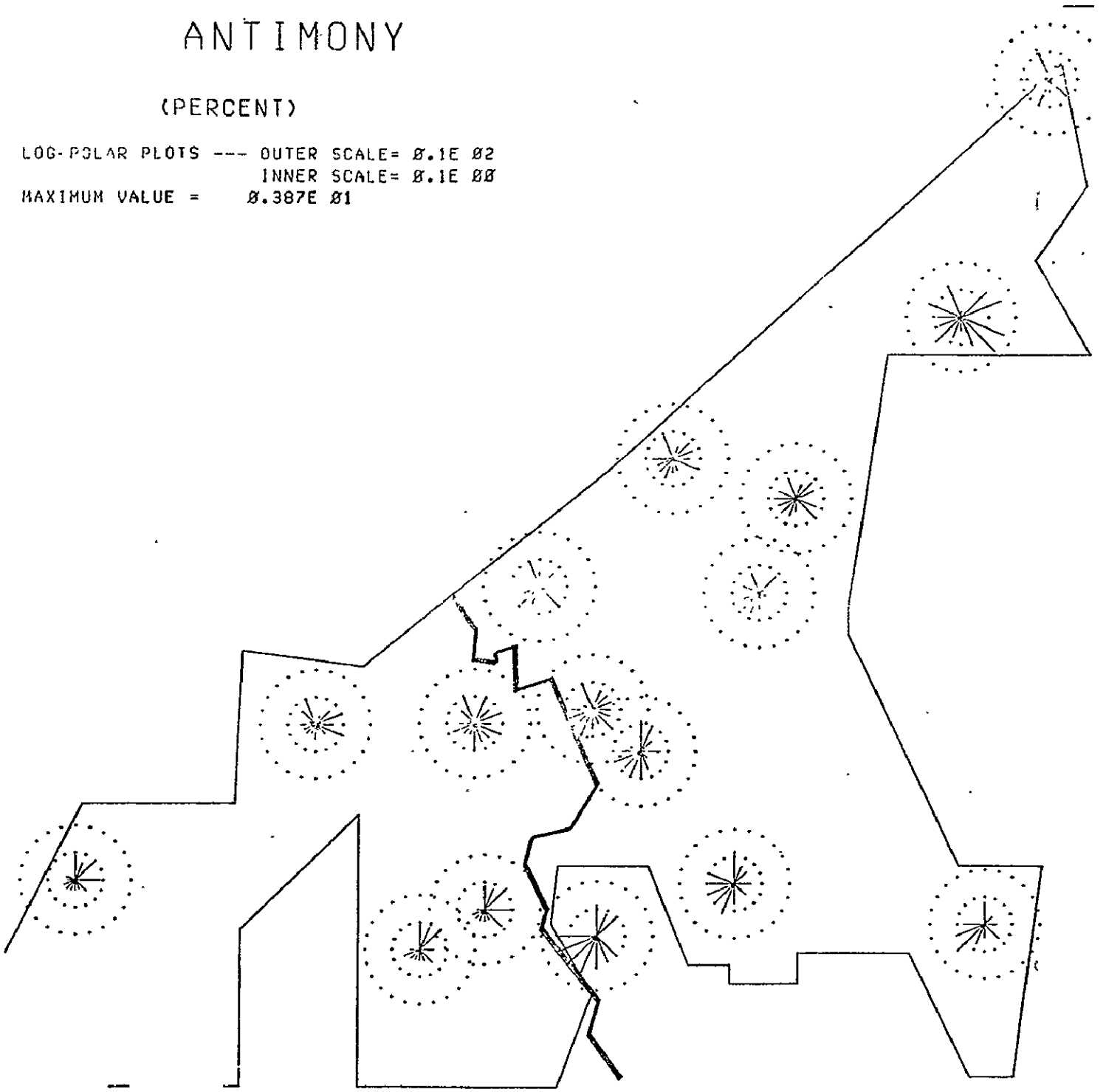
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	3	3	-1	1	1	-1	1	1	6	2	3	-1	Ø	4
3	2	2	3	Ø	3	Ø	1	-1	6	8	4	-1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	2	2	3	Ø	2	Ø	1	Ø	4	6	2	1	-1	-1	Ø	Ø
6	1	Ø	5	2	Ø	1	-1	-1	1	1	4	1	3	1	Ø	3
7	1	-1	5	4	-1	2	-1	-1	3	1	4	4	3	1	-1	3
8	3	2	3	Ø	3	Ø	1	-1	6	6	4	-1	1	Ø	Ø	Ø
9	3	1	2	Ø	3	Ø	-1	1	5	8	3	2	2	-1	Ø	Ø
10	1	-1	6	3	-1	2	-1	-1	2	-1	6	4	4	1	Ø	4
12	2	2	3	Ø	3	Ø	1	-1	6	7	4	1	2	-1	Ø	Ø
13	2	3	1	Ø	Ø	Ø	1	1	3	4	1	1	1	Ø	Ø	Ø
14	3	1	3	Ø	3	Ø	1	Ø	6	6	1	3	1	Ø	Ø	Ø
15	1	-1	4	4	-1	2	-1	-1	1	1	4	4	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	3	1	5	4	3	1	Ø	3
20	Ø	-1	4	2	-1	Ø	1	-1	1	1	2	2	3	-1	Ø	2
21	1	-1	4	2	Ø	1	1	-1	3	1	3	2	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

ANTIMONY

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.387E Ø1



ANTIMONY

(PERCENT) NUMBER OF READINGS

WIND FROM

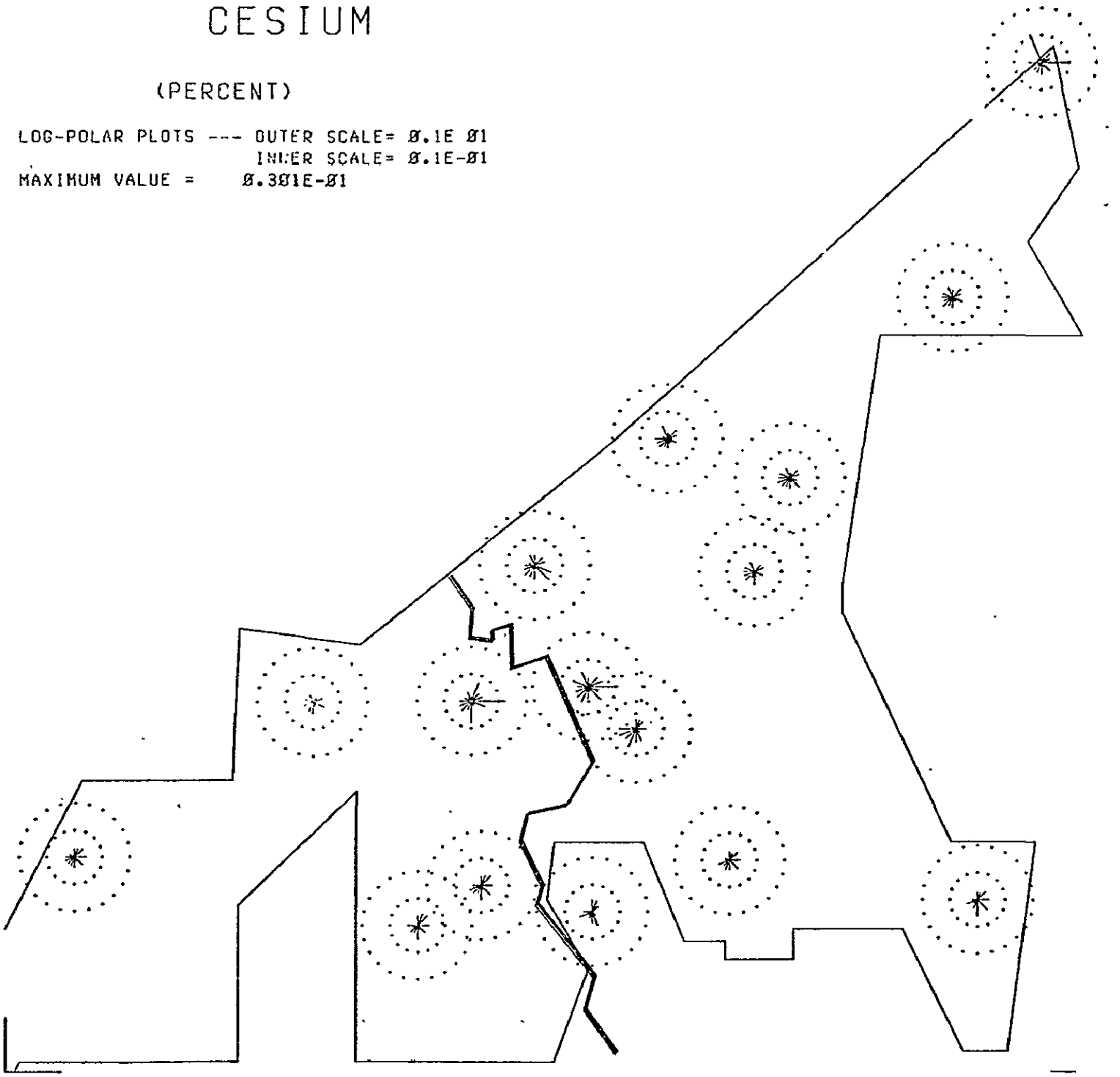
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	5	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	5	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	5	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	7	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	10	6	3	2	Ø	Ø	Ø
9	3	1	4	Ø	3	Ø	1	2	8	9	3	5	4	-1	Ø	Ø
10	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	5	2	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	6	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	7	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
20	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

CESIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.3Ø1E-Ø1



CESIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

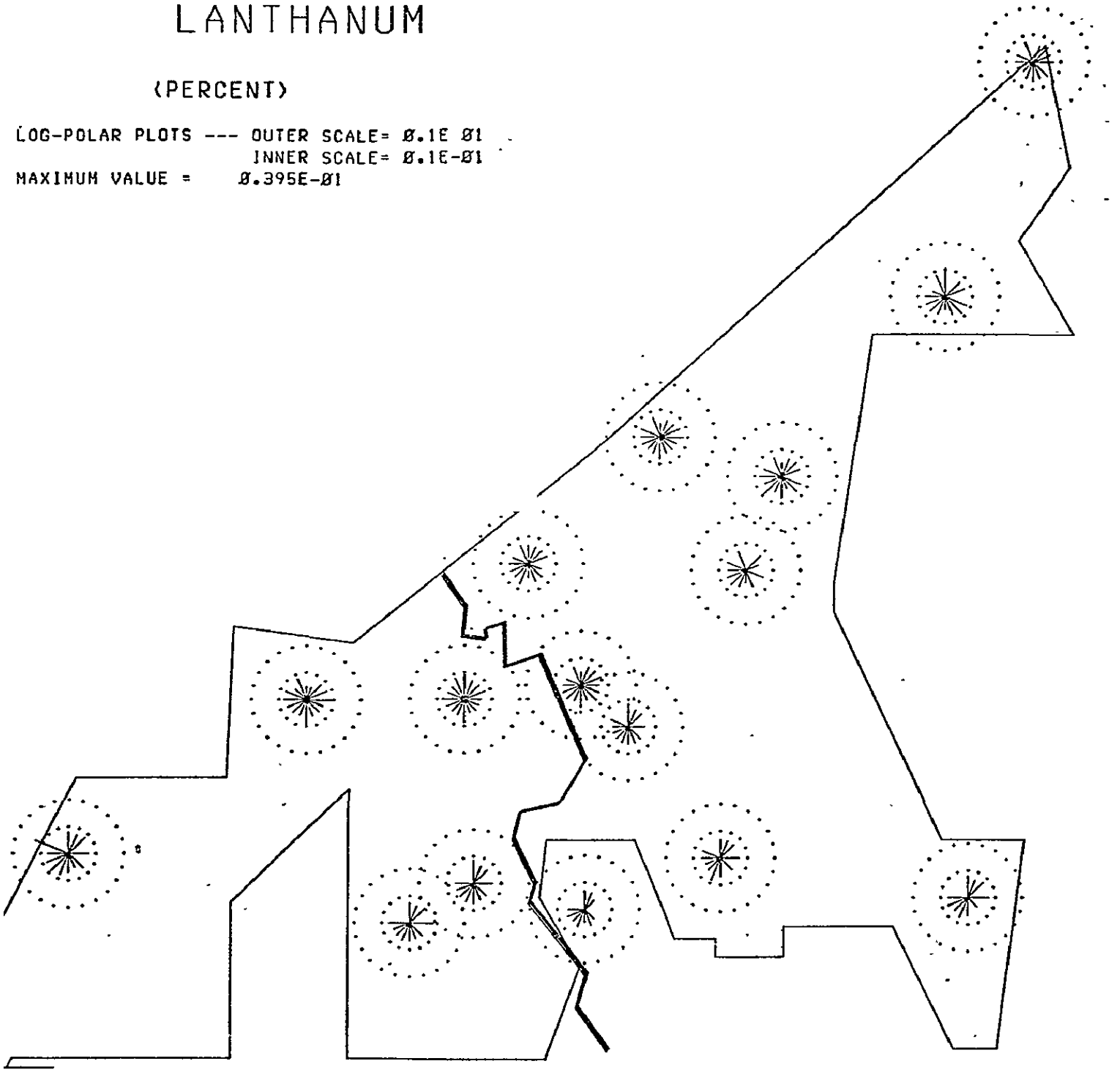
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	4	1	1	1	-1	1	2	6	2	3	1	Ø	4
3	3	2	3	Ø	3	Ø	1	-1	7	7	4	1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	2	2	4	Ø	3	Ø	1	Ø	4	6	2	1	-1	-1	Ø	Ø
6	1	Ø	5	1	Ø	1	-1	-1	1	1	4	2	3	1	Ø	2
7	1	-1	6	4	-1	2	-1	-1	3	2	4	5	3	1	-1	3
8	3	2	3	Ø	3	Ø	1	-1	7	7	4	-1	1	Ø	Ø	Ø
9	3	1	3	Ø	3	Ø	-1	1	4	9	3	2	2	-1	Ø	Ø
10	1	-1	6	3	-1	2	-1	-1	2	1	6	5	4	2	Ø	4
12	3	2	3	Ø	3	Ø	1	-1	6	8	4	1	2	-1	Ø	Ø
13	3	3	1	Ø	Ø	Ø	1	1	3	3	-1	1	1	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	6	-1	3	1	Ø	Ø	Ø
15	-1	1	5	4	1	2	-1	-1	2	1	4	4	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	3	2	5	4	3	1	Ø	3
20	Ø	-1	4	2	1	Ø	1	-1	2	2	2	2	3	-1	Ø	4
21	1	-1	5	2	Ø	1	1	-1	3	2	3	3	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

LANTHANUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.395E-Ø1



LANTHANUM

(PERCENT) NUMBER OF READINGS

WIND FROM

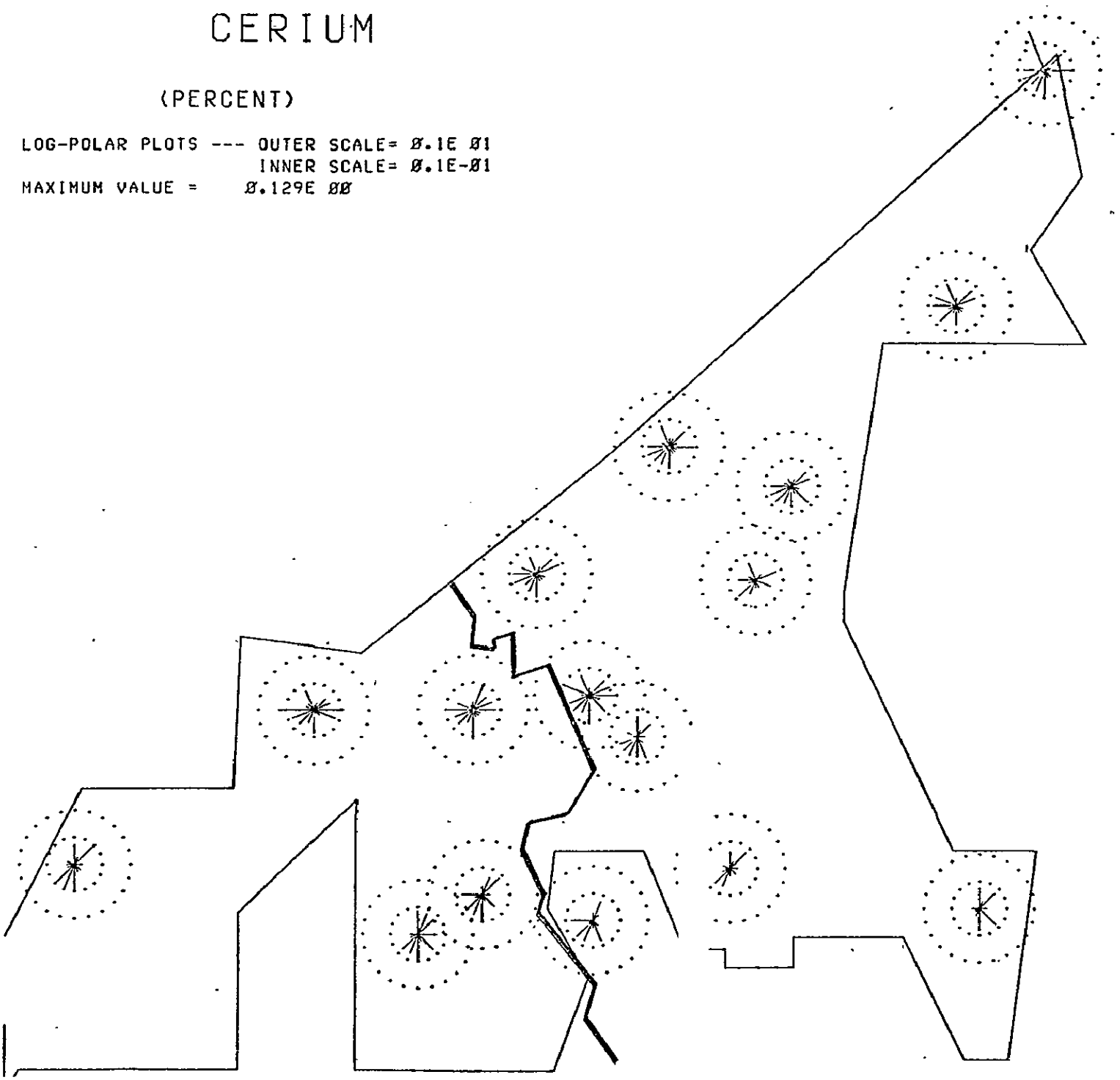
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	1	5	1	1	1	2	2	1	1	2	4	5	3	0	3
3	2	3	3	0	1	0	1	3	3	6	6	4	4	0	0	0
4	0	0	2	-1	0	1	0	1	-1	2	1	4	4	1	0	3
5	2	3	3	0	2	0	1	0	4	4	4	3	2	1	0	0
6	1	0	3	3	0	1	1	1	-1	1	2	4	5	-1	0	3
7	-1	1	6	1	1	1	1	2	1	3	2	7	6	2	1	2
8	2	3	2	0	2	0	1	3	3	7	6	4	2	0	0	0
9	1	2	2	0	2	0	1	1	3	2	3	5	3	1	0	0
10	-1	1	5	1	1	1	1	1	1	1	1	8	7	3	0	3
12	2	3	3	0	2	0	1	3	3	8	6	3	2	1	0	0
13	3	3	-1	0	0	0	-1	1	-1	6	4	4	4	0	0	0
14	2	1	2	0	3	0	-1	0	3	4	2	2	2	0	0	0
15	1	2	6	2	1	1	1	2	1	3	2	7	7	3	1	1
17	-1	1	5	3	0	1	1	-1	1	3	3	6	5	3	0	3
20	0	1	5	2	1	0	2	2	1	2	1	4	4	2	0	3
21	1	1	7	1	0	-1	1	2	2	2	1	5	4	4	0	2

-1 INDICATES ESTIMATED VALUE

CERIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.129E ØØ



CERIUM

(PERCENT)

NUMBER OF READINGS

WIND FROM

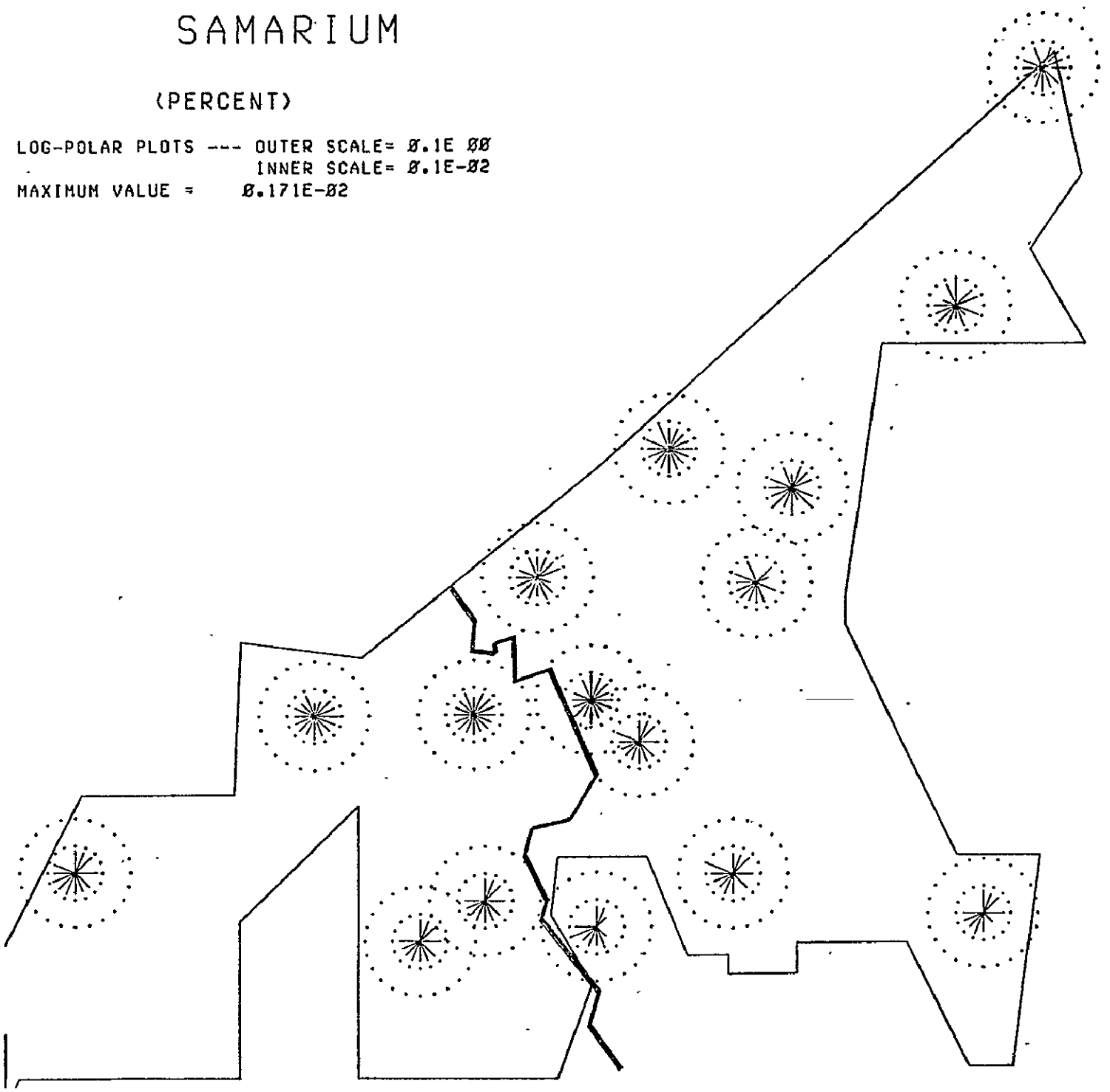
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	-1	2	1	1	-1	1	-1	1	1	3	2	-1	1	Ø	4
3	-1	2	1	Ø	-1	Ø	1	-1	1	5	2	-1	1	Ø	Ø	Ø
4	Ø	Ø	-1	1	Ø	1	Ø	-1	-1	1	2	-1	2	-1	Ø	2
5	1	-1	1	Ø	-1	Ø	-1	Ø	-1	1	2	-1	-1	-1	Ø	Ø
6	-1	Ø	4	1	Ø	-1	-1	-1	1	-1	2	-1	2	1	Ø	1
7	-1	-1	2	3	1	1	-1	-1	3	1	1	2	1	-1	-1	1
8	1	2	2	Ø	1	Ø	1	-1	1	3	2	-1	-1	Ø	Ø	Ø
9	1	-1	1	Ø	-1	Ø	-1	1	3	6	2	1	-1	-1	Ø	Ø
10	-1	-1	4	1	1	-1	-1	-1	2	1	2	2	2	-1	Ø	1
12	2	-1	1	Ø	-1	Ø	-1	-1	1	5	3	-1	-1	-1	Ø	Ø
13	-1	1	-1	Ø	Ø	Ø	-1	1	-1	4	3	-1	2	Ø	Ø	Ø
14	2	-1	2	Ø	-1	Ø	1	Ø	2	-1	-1	-1	-1	Ø	Ø	Ø
15	-1	1	4	2	1	-1	-1	-1	1	1	1	1	2	1	-1	-1
17	-1	-1	5	1	Ø	-1	1	-1	2	2	1	2	1	-1	Ø	-1
20	Ø	-1	1	-1	1	Ø	-1	-1	1	1	2	1	1	-1	Ø	2
21	Ø	-1	2	1	Ø	-1	-1	-1	1	1	1	1	1	1	Ø	1

-1 INDICATES ESTIMATED VALUE

SAMARIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E ØØ
INNER SCALE= Ø.1E-Ø2
MAXIMUM VALUE = Ø.171E-Ø2



SAMARIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

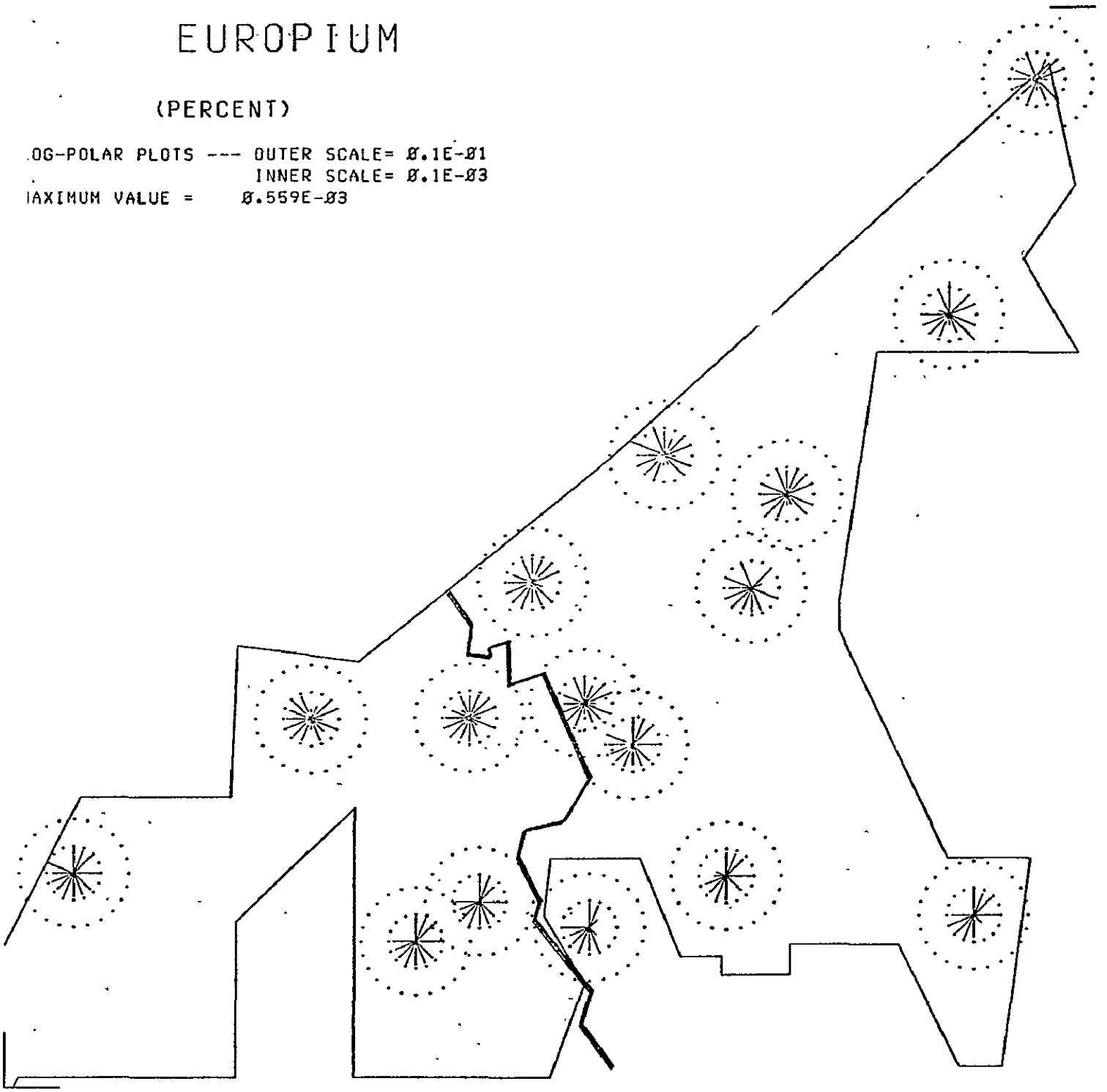
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	1	1	1	2	1	2	5	4	4	3	Ø	4
3	2	3	3	Ø	3	Ø	1	3	5	7	6	4	4	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	1	1	2	4	4	4	1	Ø	3
5	3	3	4	Ø	3	Ø	1	Ø	3	4	4	4	2	1	Ø	Ø
6	1	Ø	3	3	Ø	1	-1	1	-1	1	3	4	4	-1	Ø	3
7	-1	1	7	3	1	1	1	2	1	3	3	7	6	2	1	3
8	3	3	3	Ø	3	Ø	1	3	4	7	6	4	2	Ø	Ø	Ø
9	3	2	3	Ø	3	Ø	1	2	4	5	4	5	4	1	Ø	Ø
10	1	1	7	3	1	1	1	1	1	1	4	8	8	3	Ø	4
12	2	3	3	Ø	3	Ø	1	3	5	7	6	3	3	1	Ø	Ø
13	3	4	-1	Ø	Ø	Ø	-1	1	2	6	4	4	4	Ø	Ø	Ø
14	2	1	3	Ø	3	Ø	-1	Ø	4	5	2	3	3	Ø	Ø	Ø
15	1	2	7	3	1	1	1	2	2	3	4	7	6	3	1	2
17	-1	1	6	3	Ø	1	1	-1	1	3	3	6	5	3	Ø	3
20	Ø	1	6	2	1	Ø	2	2	1	2	1	4	5	2	Ø	4
21	1	1	7	1	Ø	-1	2	2	2	2	2	6	4	4	Ø	2

-1 INDICATES ESTIMATED VALUE

EUROPIUM

(PERCENT)

.OG-POLAR PLOTS --- OUTER SCALE= Ø.1E-Ø1
. INNER SCALE= Ø.1E-Ø3
IAXIMUM VALUE = Ø.559E-Ø3



EUROPIUM

(PERCENT)

NUMBER OF READINGS

WIND FROM

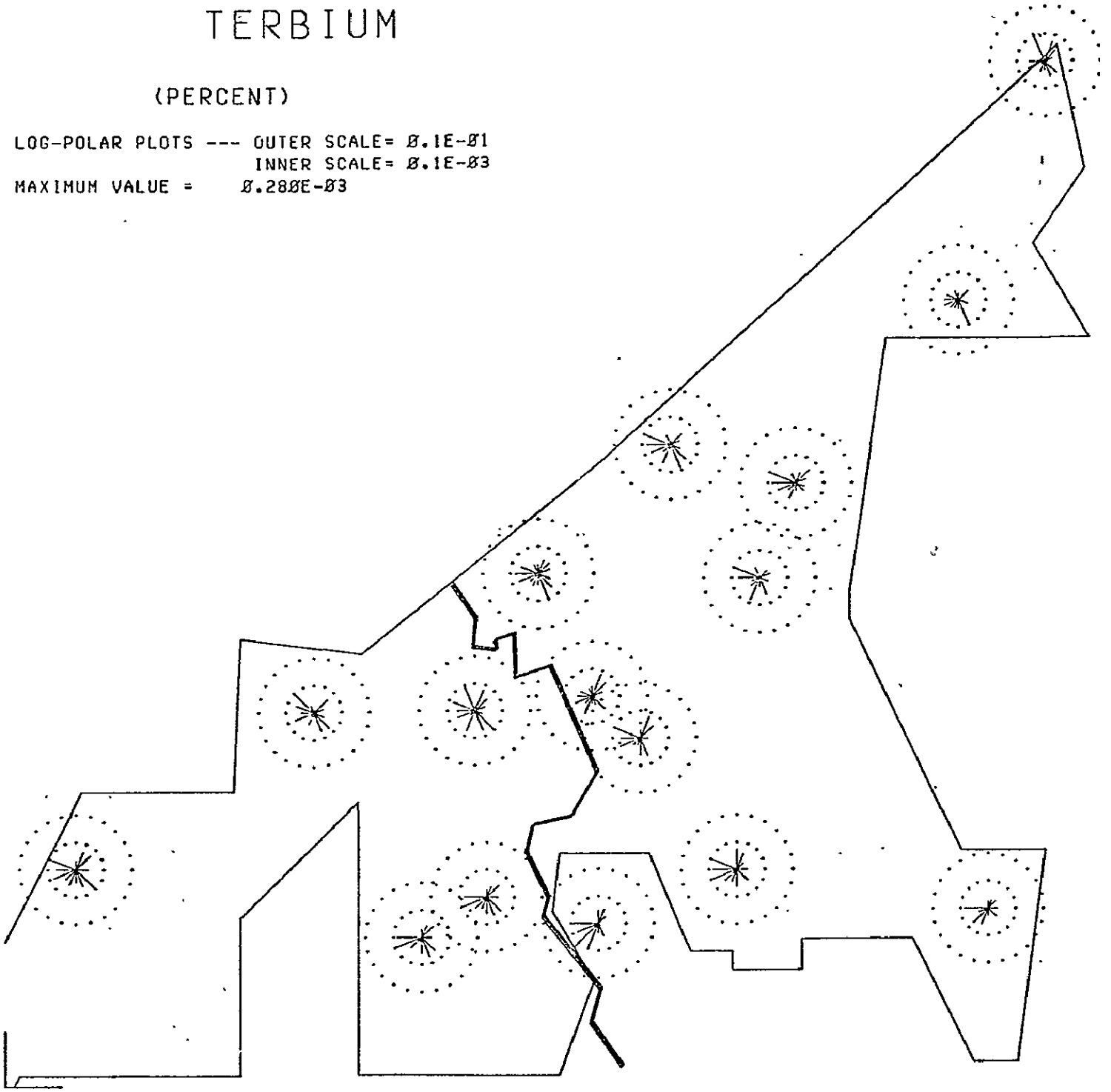
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	-1	1	2	1	-1	2	5	3	6	3	0	4
3	3	3	2	0	3	0	1	3	4	7	6	4	4	0	0	0
4	0	0	2	-1	0	1	0	1	1	2	4	4	4	1	0	3
5	2	3	4	0	3	0	1	0	4	5	3	2	1	-1	0	0
6	1	0	3	3	0	1	1	1	-1	1	4	3	4	-1	0	3
7	-1	1	7	3	-1	1	1	2	-1	3	3	7	5	2	1	3
8	3	3	3	0	3	0	1	3	5	7	6	3	2	0	0	0
9	2	1	3	0	3	0	1	2	2	5	4	5	3	1	0	0
10	1	1	7	3	-1	1	1	1	-1	1	5	8	7	3	0	4
12	2	3	3	0	3	0	1	2	4	7	6	3	3	1	0	0
13	3	3	-1	0	0	0	-1	1	2	5	4	1	2	0	0	0
14	2	1	3	0	3	0	-1	0	3	5	2	3	3	0	0	0
15	1	2	7	3	-1	1	-1	2	1	3	4	7	5	3	-1	2
17	1	1	6	3	0	1	1	-1	-1	3	4	6	4	3	0	3
20	0	1	6	2	-1	0	2	2	-1	2	1	4	4	2	0	4
21	1	1	7	1	0	-1	2	2	2	2	2	6	5	4	0	2

-1 INDICATES ESTIMATED VALUE

TERBIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E-Ø1
INNER SCALE= Ø.1E-Ø3
MAXIMUM VALUE = Ø.28ØE-Ø3



TERBIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

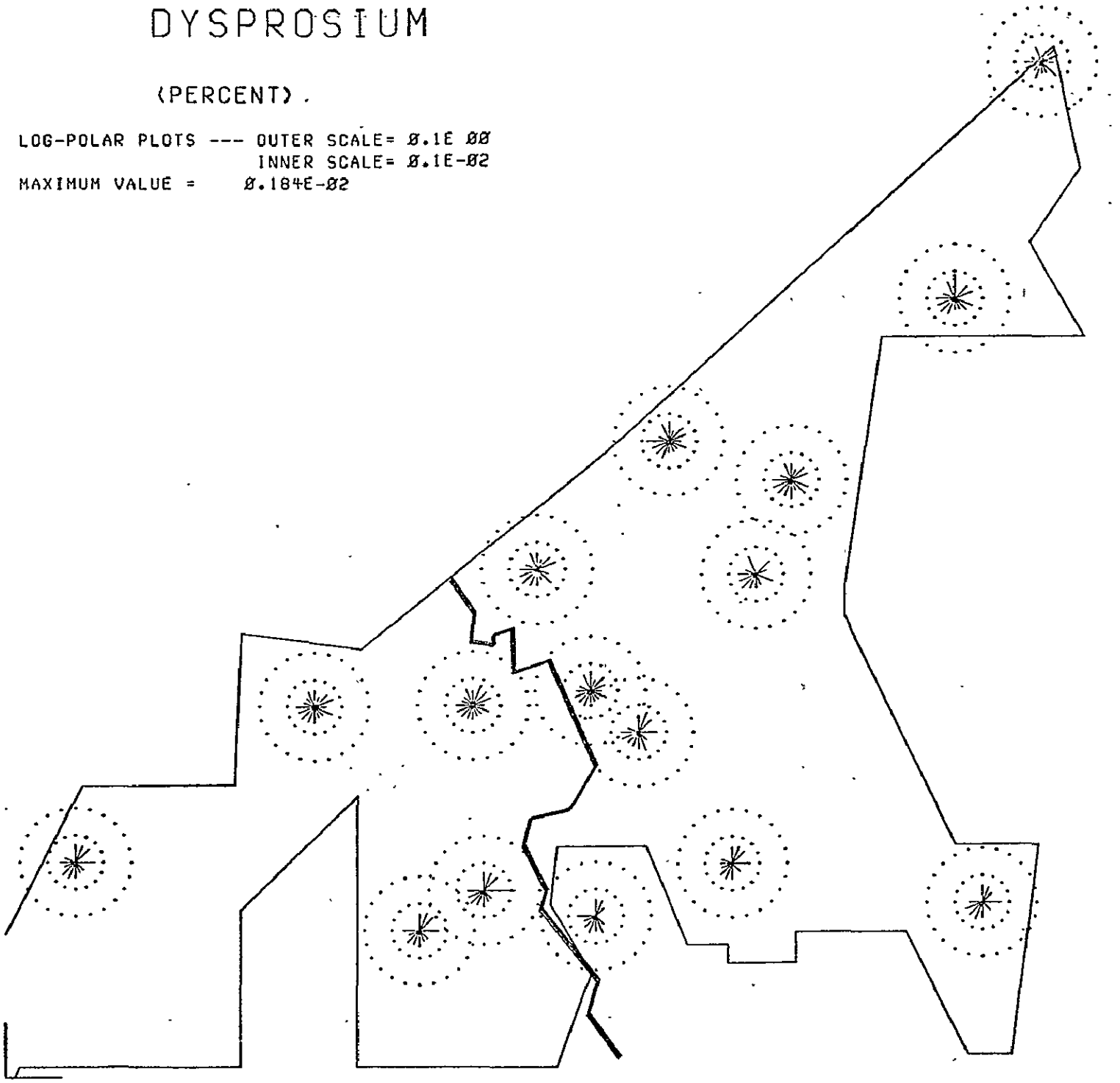
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	5	4	-1	-1	2	1	1	1	6	4	6	1	Ø	4
3	2	2	3	Ø	2	Ø	2	2	8	8	6	4	3	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	3	6	2	Ø	3
5	3	3	4	Ø	3	Ø	2	Ø	5	7	3	2	2	1	Ø	Ø
6	1	Ø	3	-1	Ø	1	-1	1	1	1	4	4	4	1	Ø	2
7	1	-1	8	4	-1	2	1	2	3	2	4	6	5	2	1	2
8	3	2	4	Ø	3	Ø	2	3	8	6	6	1	1	Ø	Ø	Ø
9	2	2	4	Ø	3	Ø	-1	2	7	8	4	5	4	1	Ø	Ø
1Ø	-1	-1	8	3	-1	2	1	1	2	1	6	8	8	4	Ø	4
12	2	3	3	Ø	3	Ø	2	3	7	1Ø	5	2	1	1	Ø	Ø
13	2	4	1	Ø	Ø	Ø	-1	1	3	5	1	2	3	Ø	Ø	Ø
14	3	1	4	Ø	2	Ø	1	Ø	5	4	1	1	2	Ø	Ø	Ø
15	1	1	7	4	-1	2	1	2	-1	1	3	5	8	2	-1	2
17	-1	1	7	4	Ø	1	1	-1	3	3	5	6	5	4	Ø	3
2Ø	Ø	1	4	2	-1	Ø	2	1	2	1	2	3	1	-1	Ø	4
21	1	1	6	2	Ø	1	2	2	3	2	3	6	5	4	Ø	3

-1 INDICATES ESTIMATED VALUE

DYSPROSIUM

(PERCENT).

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E ØØ
INNER SCALE= Ø.1E-Ø2
MAXIMUM VALUE = Ø.184E-Ø2



DYSPROSIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

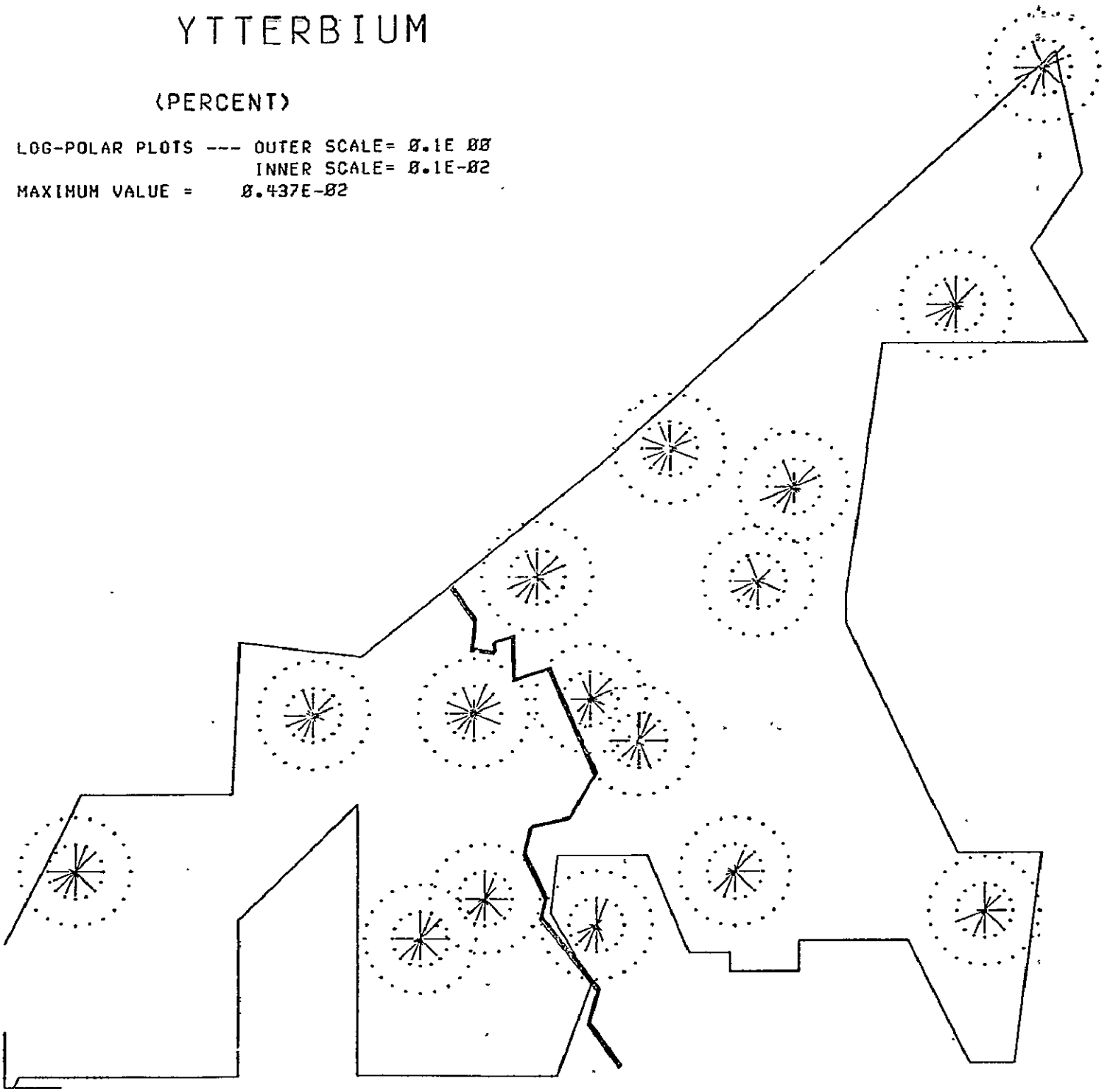
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	-1	1	-1	-1	-1	1	5	2	2	-1	Ø	3
3	3	2	2	Ø	3	Ø	-1	-1	3	6	4	1	2	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	-1	1	1	4	3	3	-1	Ø	3
5	1	2	3	Ø	3	Ø	-1	Ø	2	5	2	-1	-1	-1	Ø	Ø
6	1	Ø	4	3	Ø	1	1	-1	-1	1	4	2	3	-1	Ø	3
7	1	-1	5	3	-1	1	-1	-1	1	2	3	5	3	-1	-1	3
8	3	2	2	Ø	3	Ø	-1	-1	3	5	4	-1	1	Ø	Ø	Ø
9	3	1	2	Ø	3	Ø	-1	1	2	6	3	2	2	-1	Ø	Ø
10	1	-1	5	3	-1	1	-1	-1	-1	1	5	5	4	-1	Ø	4
12	3	2	2	Ø	3	Ø	-1	-1	3	6	4	-1	2	-1	Ø	Ø
13	3	3	-1	Ø	Ø	Ø	-1	1	2	5	4	1	2	Ø	Ø	Ø
14	2	1	3	Ø	3	Ø	-1	Ø	3	4	1	3	1	Ø	Ø	Ø
15	1	1	5	3	-1	1	-1	-1	1	1	4	3	4	-1	-1	3
17	1	-1	4	3	Ø	1	1	-1	1	2	4	4	3	-1	Ø	3
20	Ø	-1	4	2	-1	Ø	1	-1	-1	2	1	2	3	-1	Ø	4
21	1	-1	4	1	Ø	-1	1	-1	1	2	2	2	3	-1	Ø	3

-1 INDICATES ESTIMATED VALUE.

YTTERBIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E ØØ
INNER SCALE= Ø.1E-Ø2
MAXIMUM VALUE = Ø.437E-Ø2



YTTERBIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

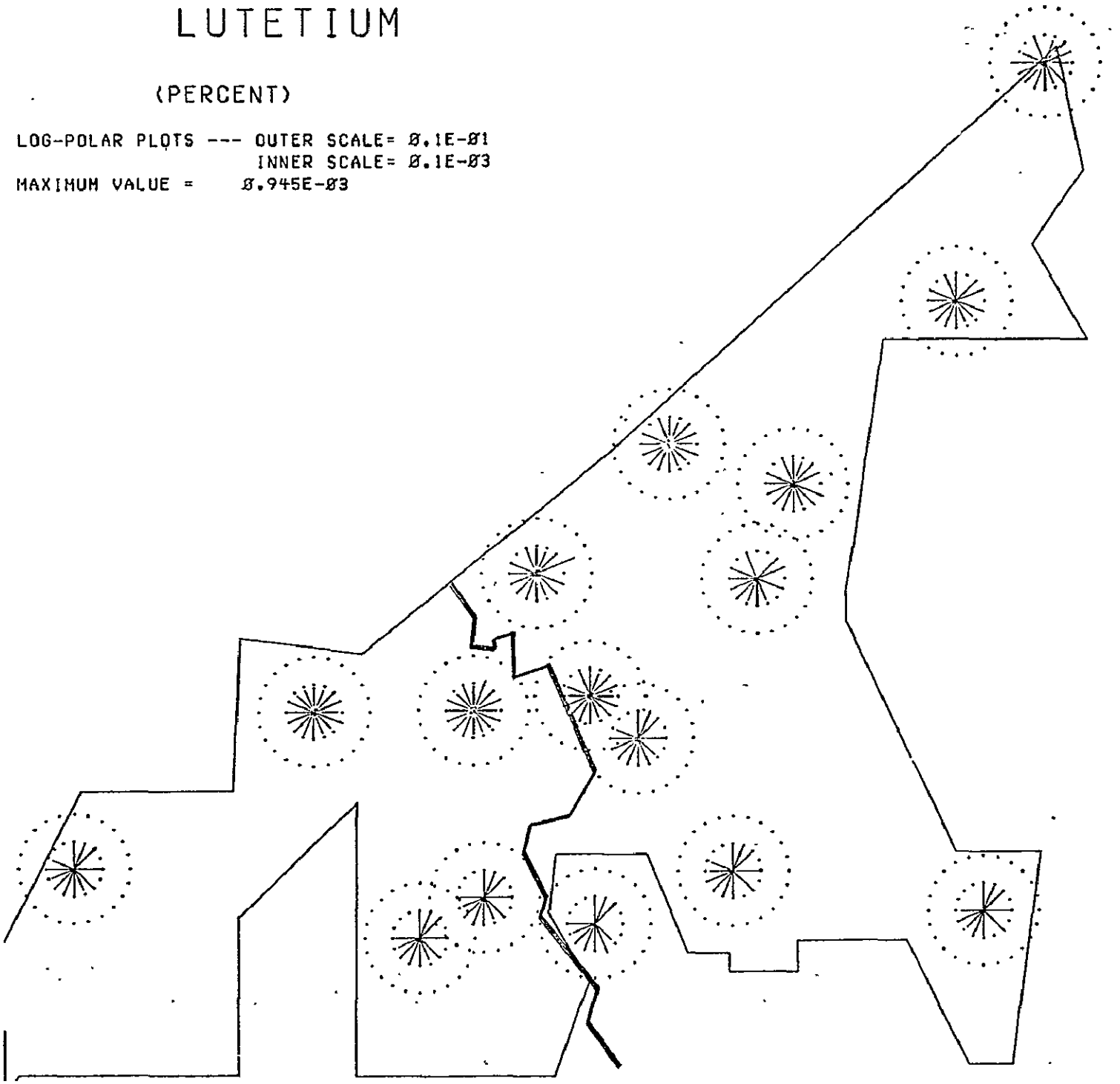
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	4	-1	1	1	-1	1	2	4	-1	1	-1	Ø	3
3	3	2	2	Ø	3	Ø	1	-1	6	7	4	-1	2	Ø	Ø	Ø
4	Ø	Ø	1	-1	Ø	2	Ø	-1	1	1	4	3	3	-1	Ø	3
5	-1	2	2	Ø	2	Ø	1	Ø	4	4	2	1	-1	-1	Ø	Ø
6	1	Ø	2	-1	Ø	-1	-1	-1	1	1	3	1	2	-1	Ø	2
7	1	-1	5	3	-1	1	-1	-1	2	2	3	5	3	-1	-1	3
8	1	2	3	Ø	3	Ø	1	-1	6	5	4	-1	1	Ø	Ø	Ø
9	2	1	2	Ø	3	Ø	-1	1	5	5	1	-1	2	-1	Ø	Ø
10	1	-1	4	3	-1	2	-1	-1	2	1	5	5	4	1	Ø	4
12	1	2	2	Ø	3	Ø	1	-1	6	5	3	1	2	-1	Ø	Ø
13	3	2	-1	Ø	Ø	Ø	-1	1	3	3	1	1	1	Ø	Ø	Ø
14	3	1	2	Ø	3	Ø	1	Ø	6	4	-1	2	-1	Ø	Ø	Ø
15	1	1	5	3	-1	2	-1	-1	1	2	3	4	4	1	-1	3
17	1	-1	3	3	Ø	-1	-1	-1	2	2	5	3	2	-1	Ø	3
20	Ø	-1	3	2	-1	Ø	1	-1	2	1	-1	2	2	-1	Ø	2
21	1	-1	5	2	Ø	-1	1	-1	2	2	2	1	3	-1	Ø	3

__ -1 INDICATES ESTIMATED VALUE

LUTETIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E-Ø1
INNER SCALE= Ø.1E-Ø3
MAXIMUM VALUE = Ø.945E-Ø3



LUTETIUM

(PERCENT) NUMBER OF READINGS

WIND FROM

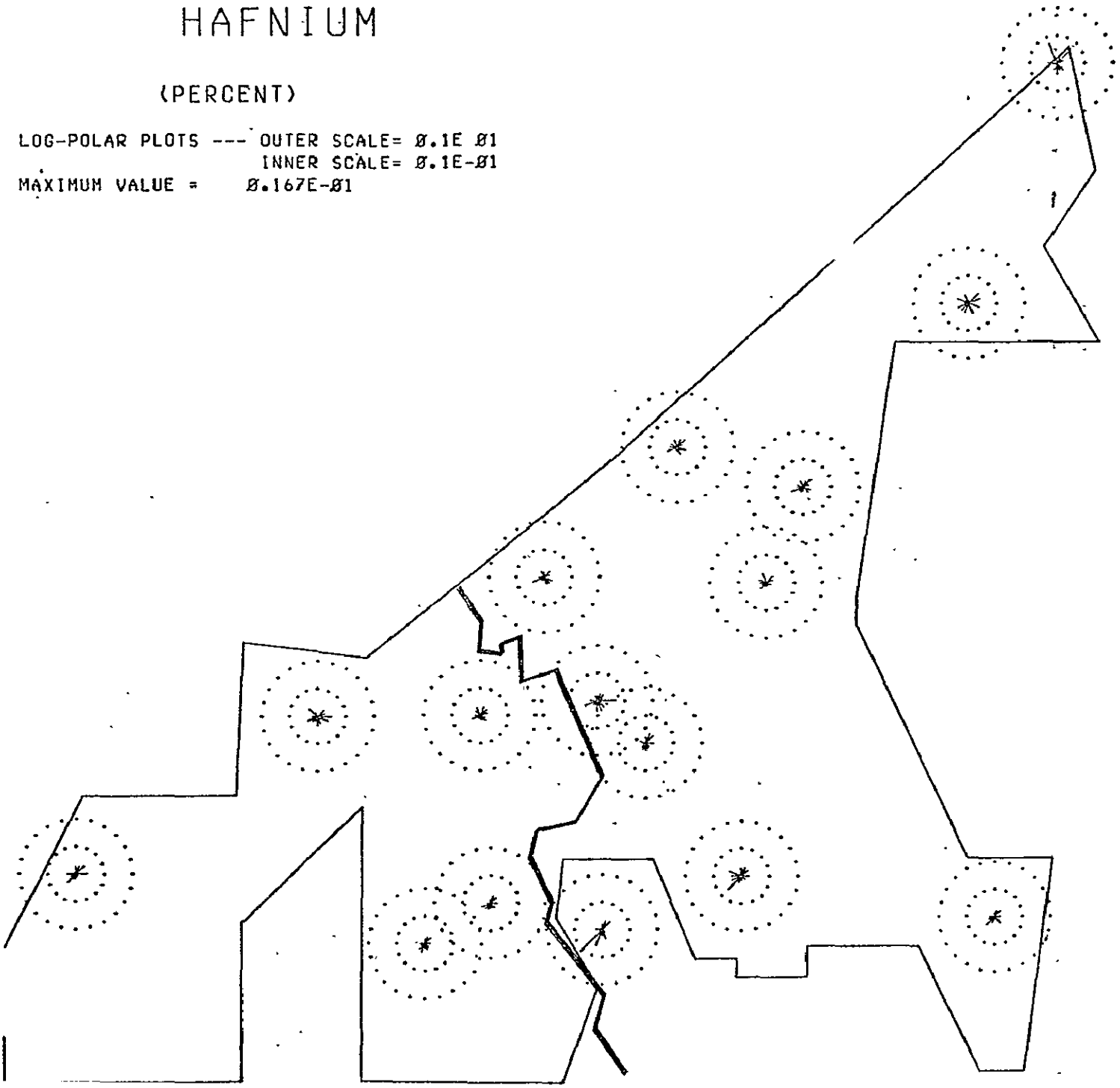
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	3	4	-1	1	1	-1	1	1	6	1	3	-1	Ø	4
3	3	2	2	Ø	3	Ø	1	-1	6	8	4	-1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	1	2	4	Ø	2	Ø	1	Ø	4	6	2	1	-1	-1	Ø	Ø
6	1	Ø	3	2	Ø	1	-1	-1	1	1	4	1	3	1	Ø	2
7	1	-1	6	3	-1	2	-1	-1	3	2	4	5	3	1	-1	2
8	3	2	3	Ø	3	Ø	1	-1	6	7	4	-1	1	Ø	Ø	Ø
9	3	1	3	Ø	3	Ø	-1	1	5	7	3	2	2	-1	Ø	Ø
10	1	-1	6	3	-1	2	-1	-1	2	1	6	5	4	1	Ø	4
12	2	2	3	Ø	3	Ø	1	-1	6	7	4	1	2	-1	Ø	Ø
13	2	3	1	Ø	Ø	Ø	1	1	3	2	1	1	1	Ø	Ø	Ø
14	2	1	4	Ø	3	Ø	1	Ø	6	6	-1	2	-1	Ø	Ø	Ø
15	1	1	5	4	-1	2	-1	-1	1	2	4	3	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	3	2	5	4	3	1	Ø	3
20	Ø	-1	4	2	-1	Ø	1	-1	2	2	2	1	1	-1	Ø	2
21	1	-1	5	2	Ø	1	1	-1	3	2	2	2	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

HAFNIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.167E-Ø1



HAFNIUM

(PERCENT)

NUMBER OF READINGS

WIND FROM

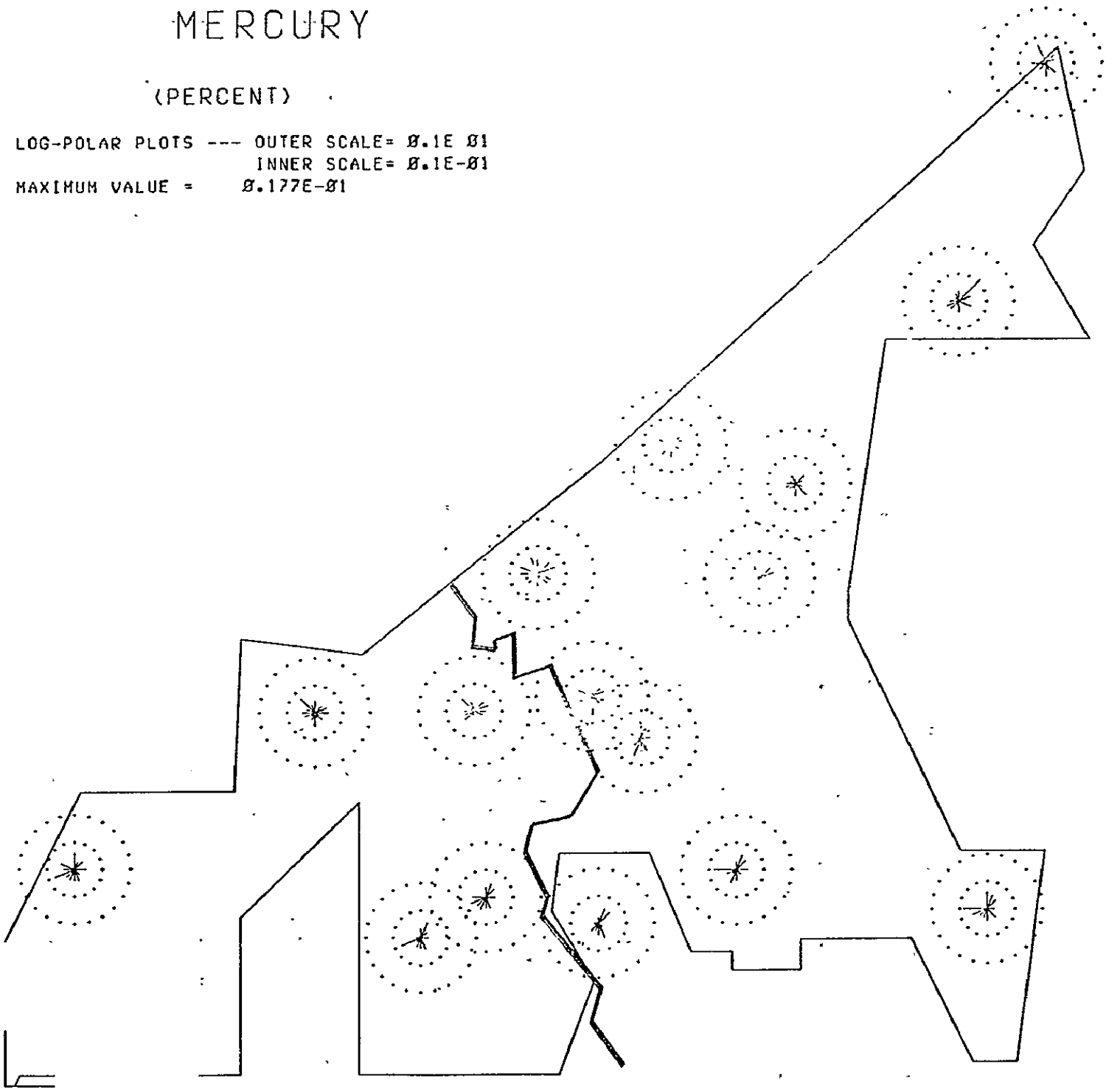
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	3	7	2	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	7	4	4	2	1	0	0
6	1	0	5	2	0	1	-1	1	1	1	4	4	5	1	0	3
7	1	1	7	4	1	2	1	2	4	3	4	7	6	3	1	3
8	3	3	4	0	3	0	2	3	9	8	5	3	2	0	0	0
9	3	2	4	0	3	0	1	2	8	8	4	5	4	1	0	0
10	1	1	8	3	-1	2	1	1	2	1	6	8	8	4	0	4
12	3	3	4	0	3	0	2	2	7	11	5	3	3	1	0	0
13	3	4	1	0	0	0	1	1	3	3	1	1	1	0	0	0
14	3	1	4	0	3	0	1	0	7	6	2	3	3	0	0	0
15	1	1	7	4	-1	2	1	2	1	3	4	6	8	4	1	2
17	1	1	7	4	0	1	1	-1	3	3	5	6	5	4	0	3
20	0	1	6	2	-1	0	2	2	3	1	2	4	4	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	5	4	0	3

-1 INDICATES ESTIMATED VALUE

MERCURY

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.177E-Ø1



MERCURY

(PERCENT) NUMBER OF READINGS

WIND FROM

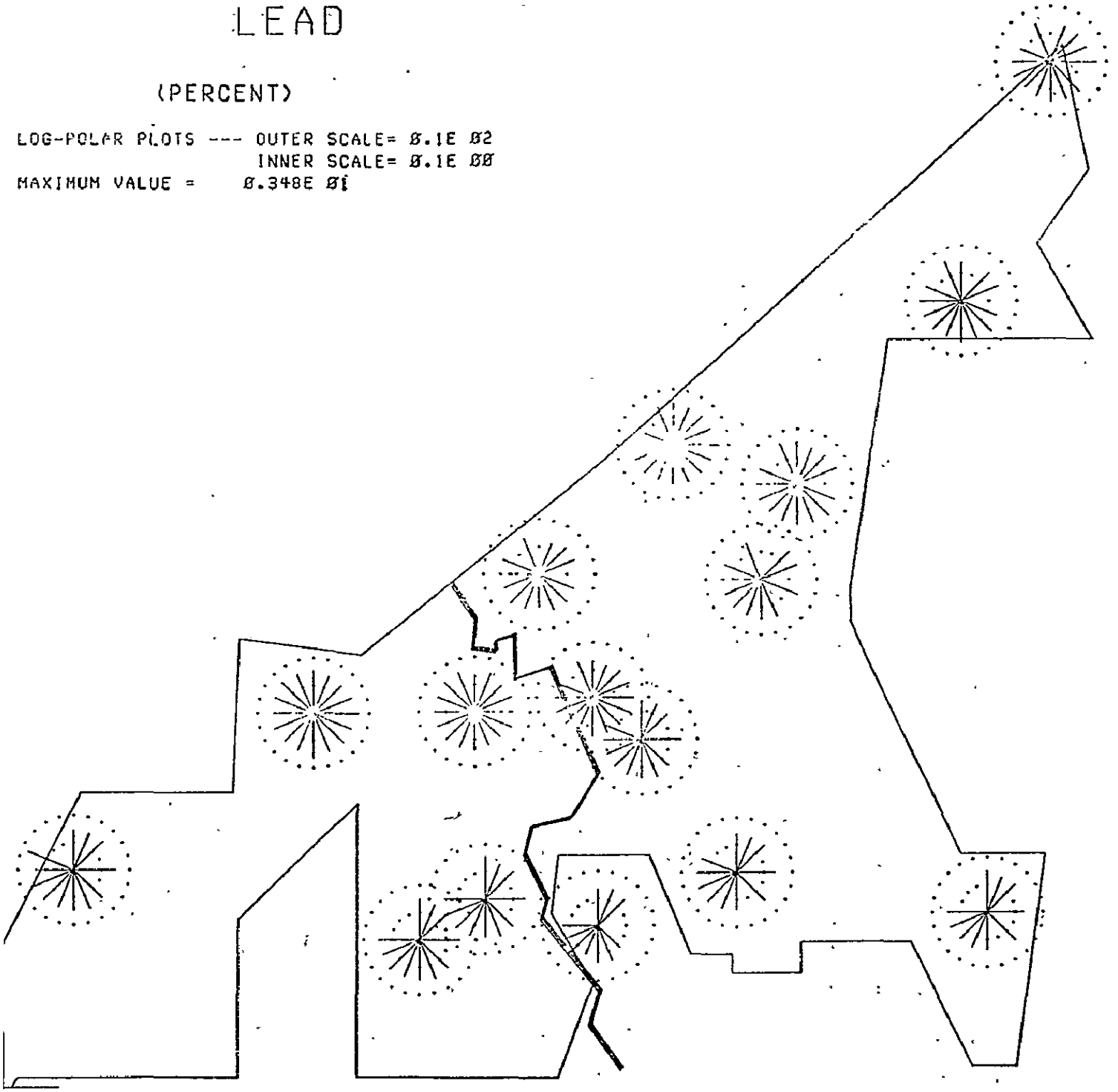
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	5	4	-1	1	1	-1	2	1	6	4	7	3	Ø	3
3	3	3	3	Ø	3	Ø	2	3	8	11	6	4	3	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	1	5	4	4	2	Ø	3
5	2	3	5	Ø	3	Ø	2	Ø	4	7	4	2	2	1	Ø	Ø
6	1	Ø	4	2	Ø	1	-1	-1	1	1	3	3	4	1	Ø	2
7	1	-1	6	4	1	2	1	2	4	2	4	7	6	2	1	3
8	3	2	3	Ø	3	Ø	2	3	6	8	6	2	2	Ø	Ø	Ø
9	3	1	3	Ø	3	Ø	-1	2	5	9	4	3	3	-1	Ø	Ø
10	1	1	8	3	-1	2	1	-1	3	1	6	8	6	2	Ø	4
12	3	3	4	Ø	2	Ø	2	3	7	9	5	3	3	1	Ø	Ø
13	2	4	1	Ø	Ø	Ø	1	1	3	4	2	1	2	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	6	7	1	3	3	Ø	Ø	Ø
15	1	1	6	4	1	2	-1	1	2	3	4	7	7	4	1	2
17	1	-1	7	4	Ø	1	1	-1	3	2	5	5	5	4	Ø	3
20	Ø	1	5	2	-1	Ø	2	1	3	2	2	4	4	2	Ø	4
21	1	1	7	2	Ø	1	2	1	3	2	3	6	5	4	Ø	3

-1 INDICATES ESTIMATED VALUE

LEAD

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 02
INNER SCALE= 0.1E 00
MAXIMUM VALUE = 0.348E 01



LEAD

(PERCENT) NUMBER OF READINGS

WIND FROM

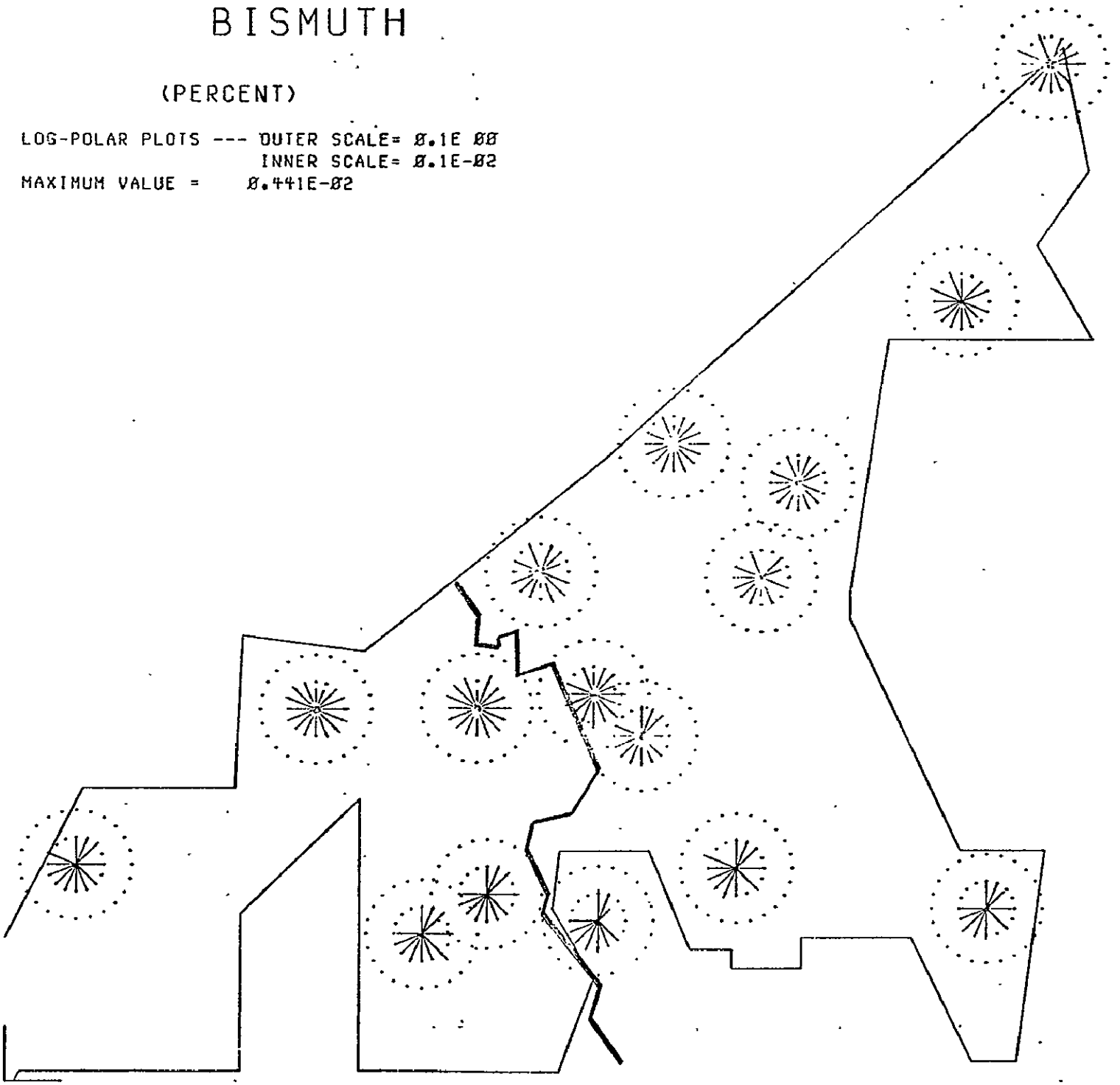
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	3	2	2	6	4	7	3	Ø	5
3	4	3	4	Ø	3	Ø	2	3	1Ø	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	2	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	4
8	3	3	4	Ø	3	Ø	2	3	1Ø	1Ø	6	3	2	Ø	Ø	Ø
9	4	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	2	3	1	6	8	7	4	Ø	5
12	4	3	4	Ø	3	Ø	2	3	9	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	4	1	4	Ø	3	Ø	1	Ø	8	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	Ø	1	1	1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	3	3	2	2	4	5	2	Ø	5
21	Ø	1	7	2	Ø	1	2	2	2	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

BISMUTH

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E ØØ
INNER SCALE= Ø.1E-Ø2
MAXIMUM VALUE = Ø.441E-Ø2



BISMUTH

(PERCENT) NUMBER OF READINGS

WIND FROM

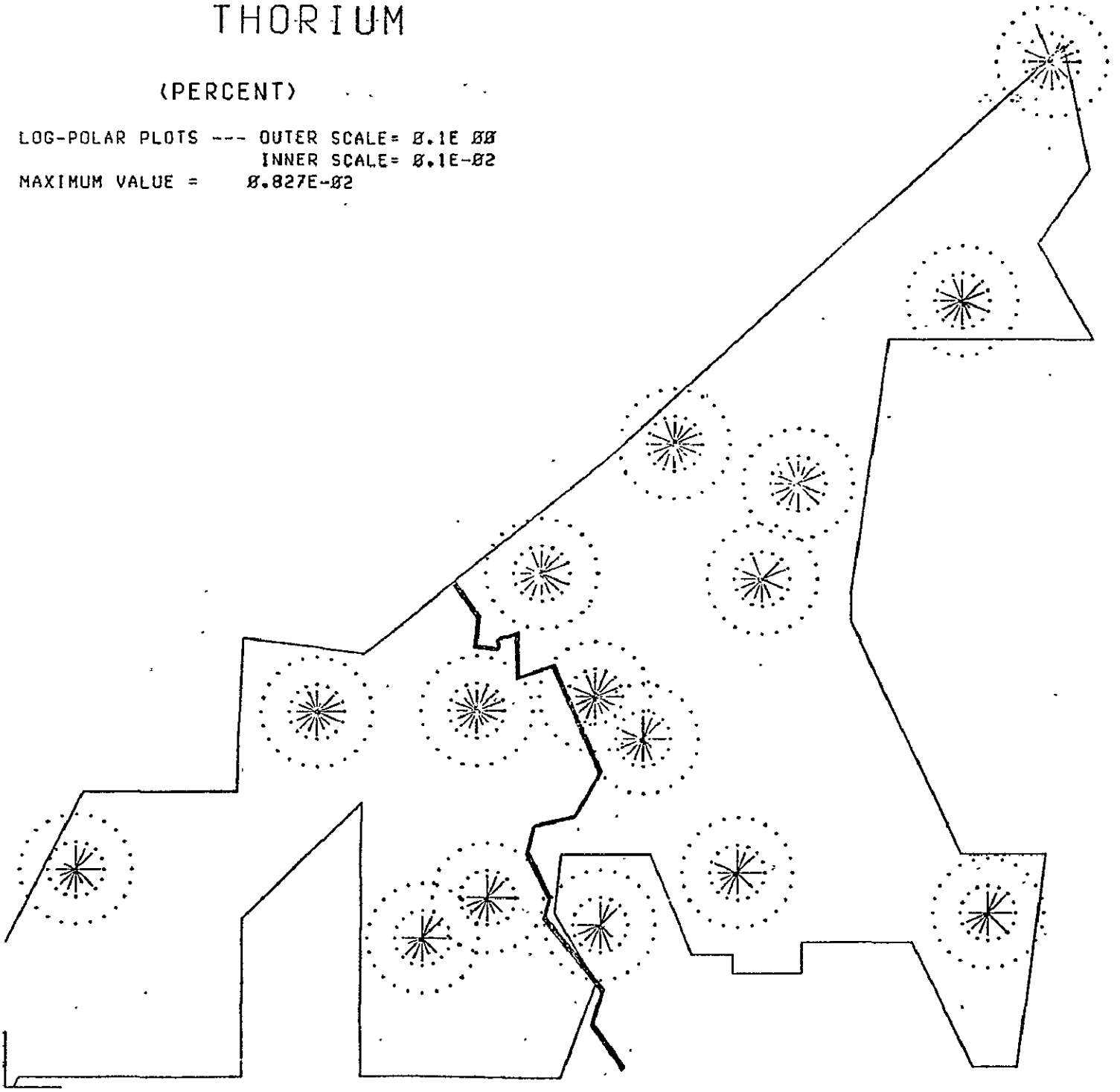
SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	3	2	2	6	4	7	3	Ø	5
3	4	3	4	Ø	3	Ø	2	3	1Ø	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	2	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	4
8	3	3	4	Ø	3	Ø	2	3	1Ø	1Ø	6	3	2	Ø	Ø	Ø
9	4	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	2	3	1	6	8	7	4	Ø	5
12	4	3	4	Ø	3	Ø	2	3	9	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	4	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	Ø	1	1	1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	3	3	2	2	4	5	2	Ø	5
21	Ø	1	7	2	Ø	1	2	2	2	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

THORIUM

(PERCENT)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E ØØ
INNER SCALE= Ø.1E-Ø2
MAXIMUM VALUE = Ø.827E-Ø2



THORIUM

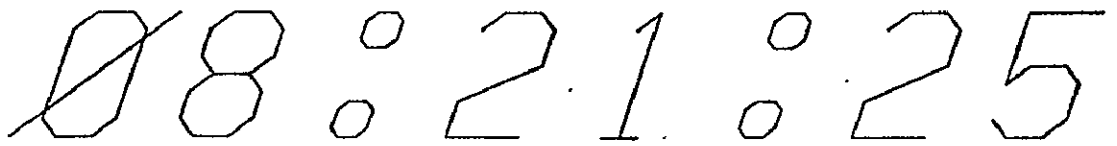
(PERCENT) NUMBER OF READINGS

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	1	2	[illegible]	[illegible]	7	2	Ø	[illegible]
3	3	3	[illegible]	Ø	3	[illegible]	2	3	[illegible]	11	6	[illegible]	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	[illegible]	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	3	2	1	Ø	Ø
6	1	[illegible]	5	2	[illegible]	1	-1	1	1	1	[illegible]	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	[illegible]	3	4	7	7	2	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	4	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	1	3	8	1Ø	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	3	6	2	3	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	6	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	7	4	1	3
17	1	1	6	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

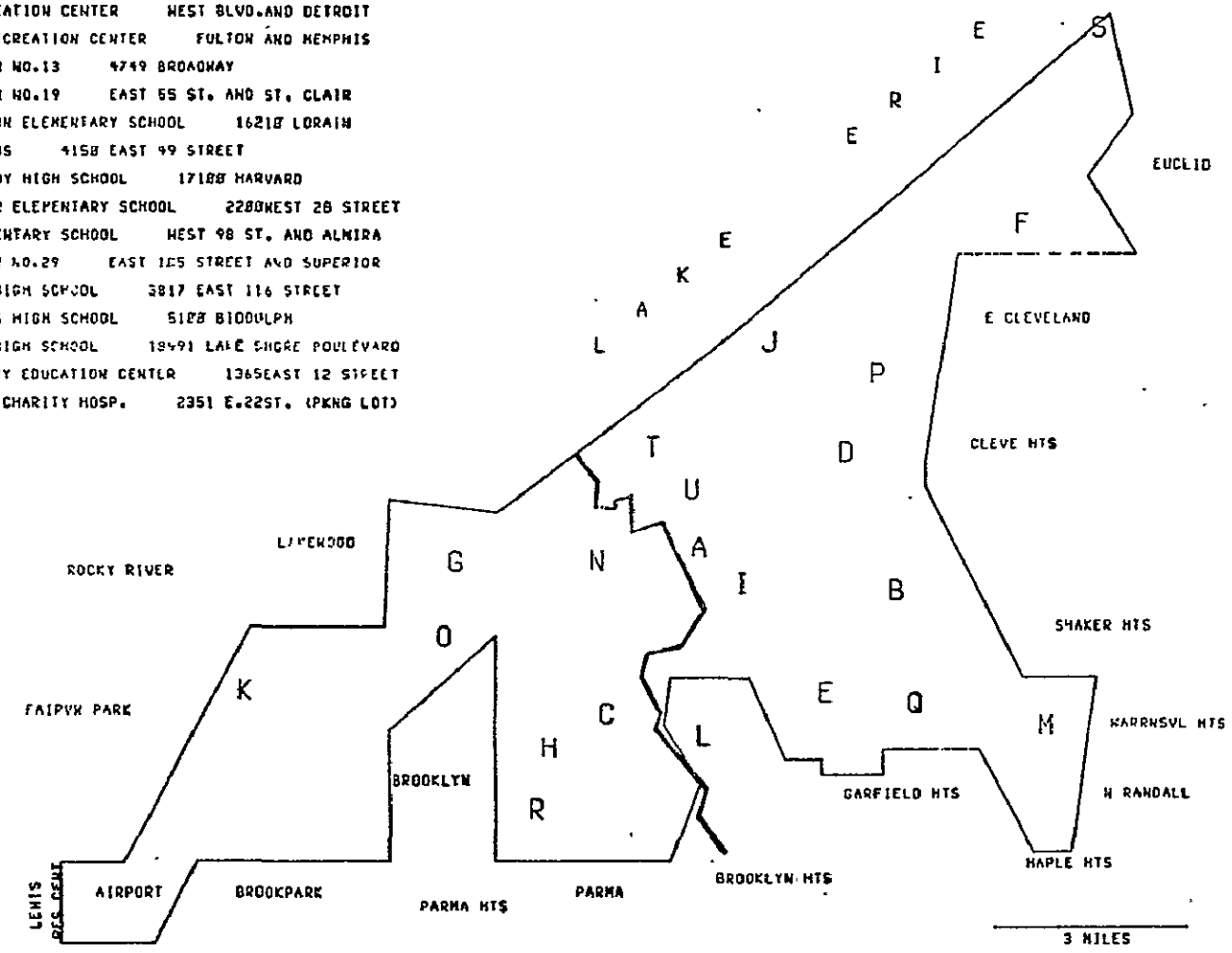
-1 INDICATES ESTIMATED VALUE


ECNEUSTC


15 OCT 1975


08:21:25

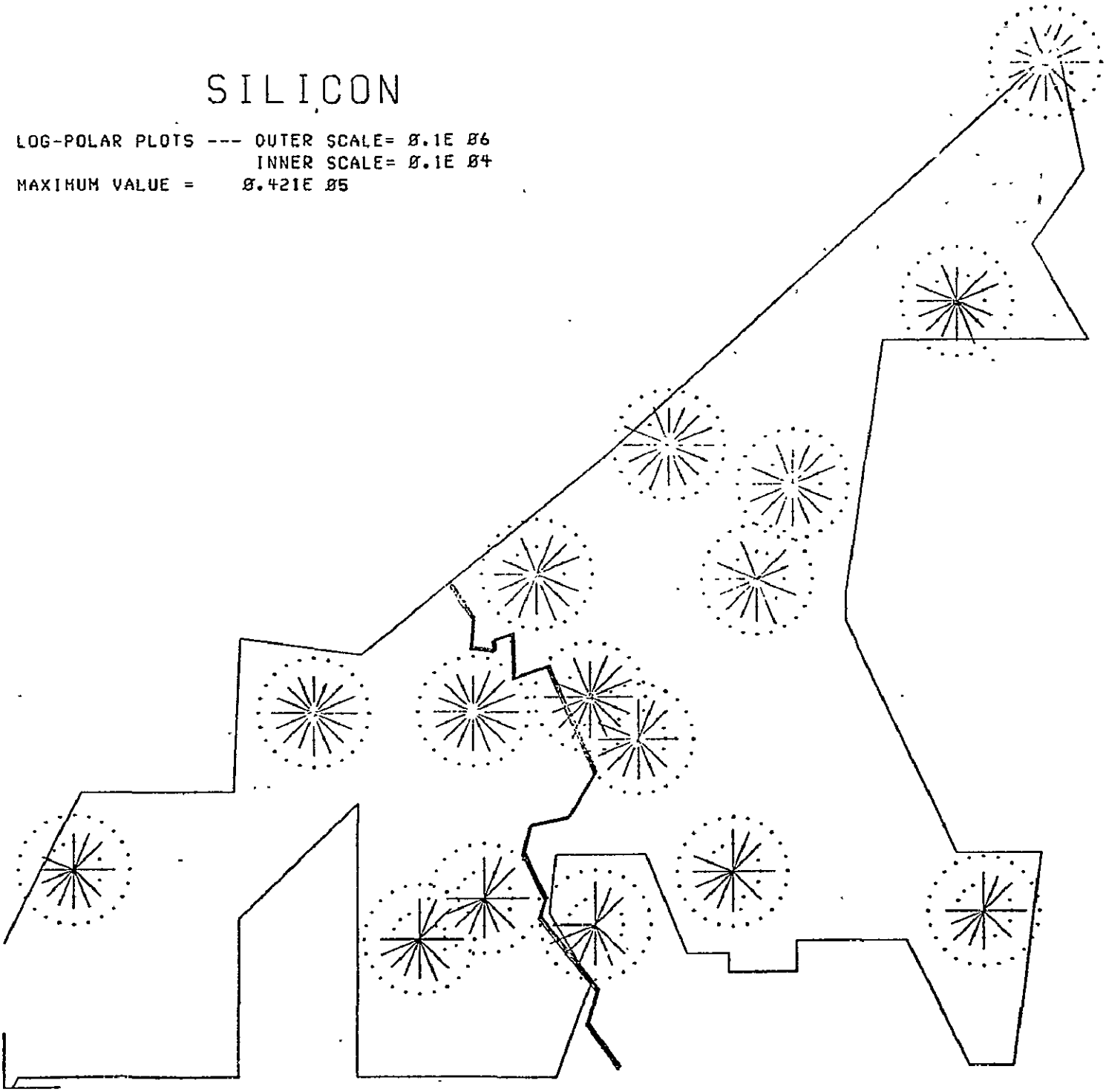
A AIR POLLUTION CONTROL OFFICE 2785 BROADWAY
B ADDISON JR. HIGH SCHOOL 3855 EAST BOULEVARD
C BROOKLYN Y.M.C.A. WEST 25 ST. AND DENISON
D CLEVELAND HEALTH MUSEUM 8911 EUCLID
E CLEVELAND PNEUMATIC TOOL 3781 E.71 ST. (NEAR BDWY)
F COLLINWOOD HIGH SCHOOL EAST 152 ST.AND ST. CLAIR
G CUDELL RECREATION CENTER WEST BLVD.AND DETROIT
H ESTABROOK RECREATION CENTER FULTON AND MEMPHIS
I FIRE STATION NO.13 4749 BROADWAY
J FIRE STATION NO.19 EAST 55 ST. AND ST. CLAIR
K G. WASHINGTON ELEMENTARY SCHOOL 16218 LORAIN
L HARVARD YARDS 4158 EAST 99 STREET
M J. F. KENNEDY HIGH SCHOOL 17188 HARVARD
N P. L. DUNBAR ELEMENTARY SCHOOL 2280WEST 28 STREET
O ALMIRA ELEMENTARY SCHOOL WEST 98 ST. AND ALMIRA
P FIRE STATION NO.29 EAST 185 STREET AND SUPERIOR
Q JOHN ADAMS HIGH SCHOOL 3817 EAST 116 STREET
R J. F. RHODES HIGH SCHOOL 5108 BIDDULPH
S ST. JOSEPH HIGH SCHOOL 19491 LAKE SHORE BOULEVARD
T SUPPLEMENTARY EDUCATION CENTER 1365EAST 12 STREET
U ST. VINCENT CHARITY HOSP. 2351 E.22ST. (PKNG LOT)



CLEVELAND, OHIO

SILICON

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 06
INNER SCALE= 0.1E 04
MAXIMUM VALUE = 0.421E 05



SILICON

NUMBER OF READINGS

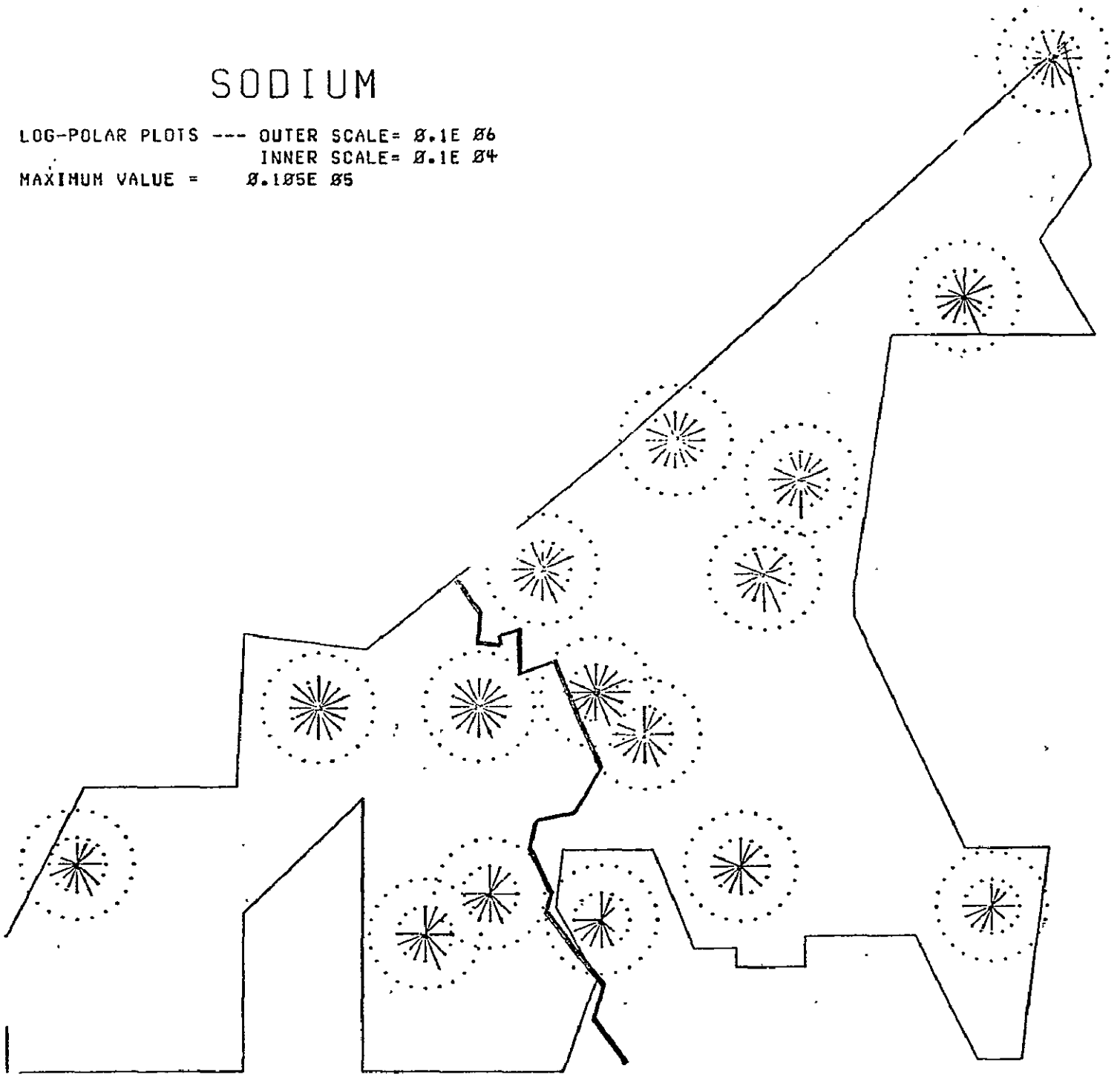
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1 -	1	1	6	4	1	1	2	3	2	2	6	4	7	3	Ø	5
3 -	4	3	4	Ø	3	Ø	2	3	1Ø	11	6	5	4	Ø	Ø	Ø
4 -	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5 -	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6 -	1	Ø	5	3	Ø	2	1	2	1	1	5	4	5	1	Ø	3
7 -	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	4
8 -	3	3	4	Ø	3	Ø	2	3	1Ø	1Ø	6	3	2	Ø	Ø	Ø
9 -	4	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø -	1	1	8	3	1	2	1	2	3	1	6	8	7	4	Ø	5
12 -	4	3	4	Ø	3	Ø	2	3	9	11	6	3	3	1	Ø	Ø
13 -	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14 -	4	1	4	Ø	3	Ø	1	Ø	8	7	2	3	3	Ø	Ø	Ø
15 -	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17 -	1	1	7	4	Ø	1	1	1	4	3	5	6	5	4	Ø	3
2Ø -	Ø	1	6	2	1	Ø	2	3	3	2	2	4	5	2	Ø	5
21 -	Ø	1	7	2	Ø	1	2	2	2	2	4	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

SODIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø6
INNER SCALE= Ø.1E Ø4
MAXIMUM VALUE = Ø.105E Ø5



SODIUM

NUMBER OF READINGS

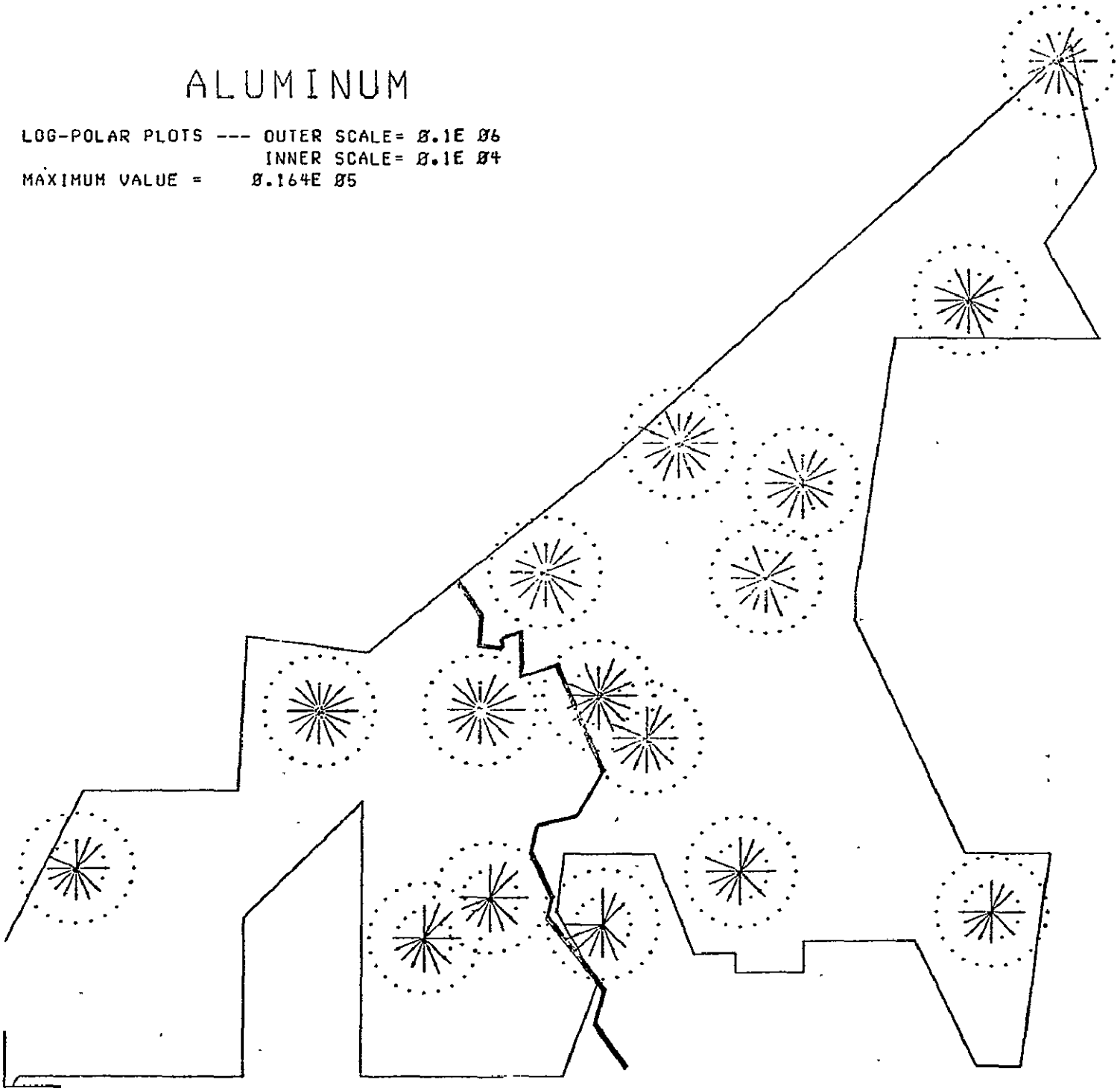
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	1	1	2	2	1	2	5	4	7	3	Ø	4
3	3	3	3	Ø	3	Ø	1	3	6	9	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	1	1	2	4	4	6	1	Ø	3
5	2	3	4	Ø	3	Ø	1	Ø	4	6	4	4	2	1	Ø	Ø
6	1	Ø	4	3	Ø	1	1	1	-1	1	4	4	5	-1	Ø	3
7	1	1	7	3	1	1	1	2	2	3	3	7	7	2	1	3
8	3	3	3	Ø	3	Ø	1	3	6	8	6	4	2	Ø	Ø	Ø
9	3	2	3	Ø	3	Ø	1	2	5	7	4	5	4	1	Ø	Ø
10	1	1	7	3	1	1	1	1	1	1	5	8	8	3	Ø	4
12	3	3	3	Ø	3	Ø	1	3	5	9	6	3	3	1	Ø	Ø
13	3	4	-1	Ø	Ø	Ø	-1	1	2	6	4	4	4	Ø	Ø	Ø
14	2	1	3	Ø	3	Ø	-1	Ø	4	5	2	3	3	Ø	Ø	Ø
15	1	2	7	3	1	1	1	2	2	3	4	7	8	3	1	3
17	1	1	6	3	Ø	1	1	-1	2	3	4	6	5	3	Ø	3
20	Ø	1	6	2	1	Ø	2	2	1	2	1	4	5	2	Ø	4
21	1	1	7	1	Ø	-1	2	2	2	2	2	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

ALUMINUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø6
INNER SCALE= Ø.1E Ø4
MAXIMUM VALUE = Ø.164E Ø5



ALUMINUM

NUMBER OF READINGS

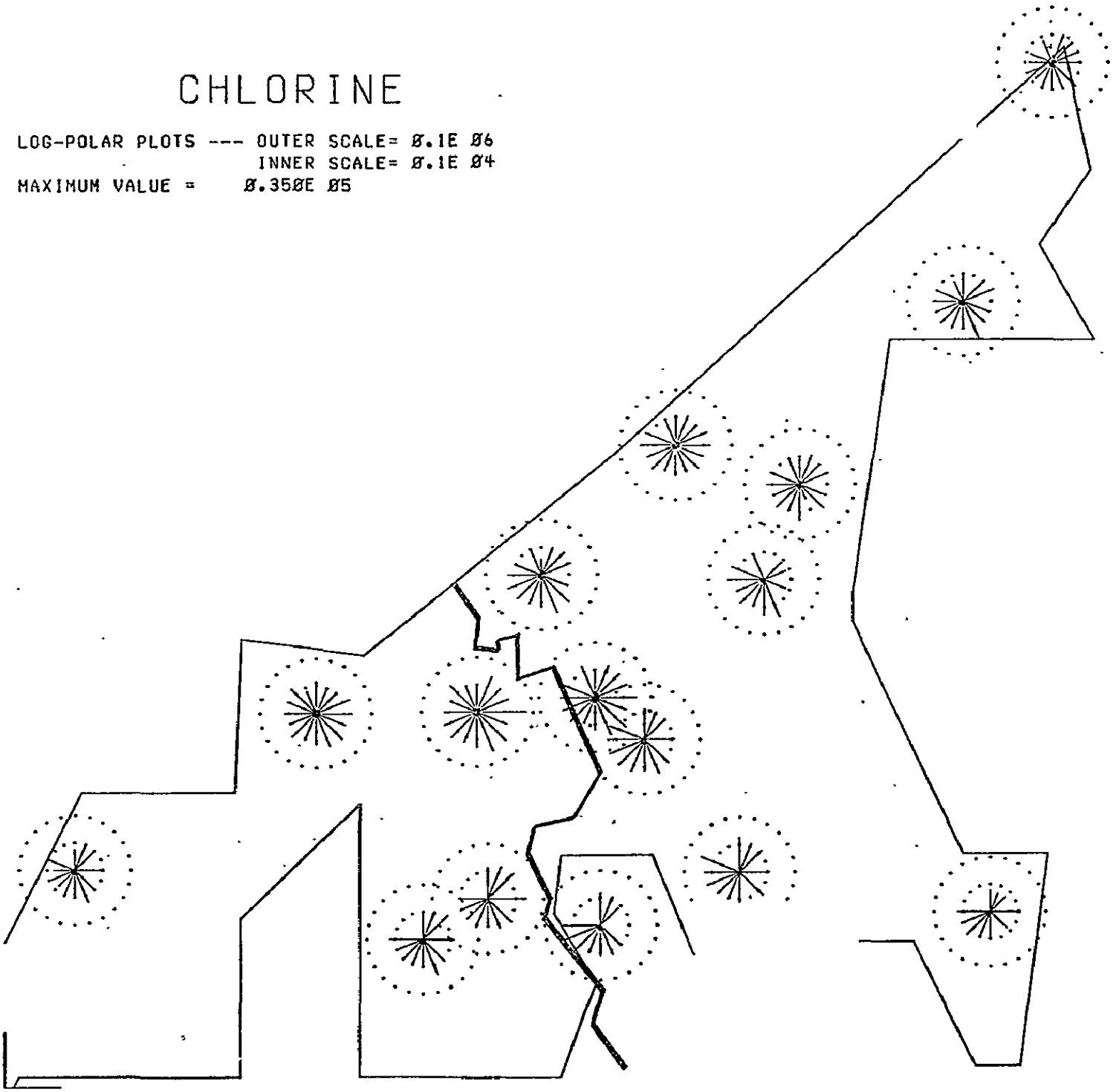
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	7	4	0	4
12	3	3	4	0	3	0	2	3	8	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	3	1	4	0	3	0	1	0	7	7	2	2	3	0	0	0
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	5	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

CHLORINE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø6
INNER SCALE= Ø.1E Ø4
MAXIMUM VALUE = Ø.350E Ø5



CHLORINE

NUMBER OF READINGS

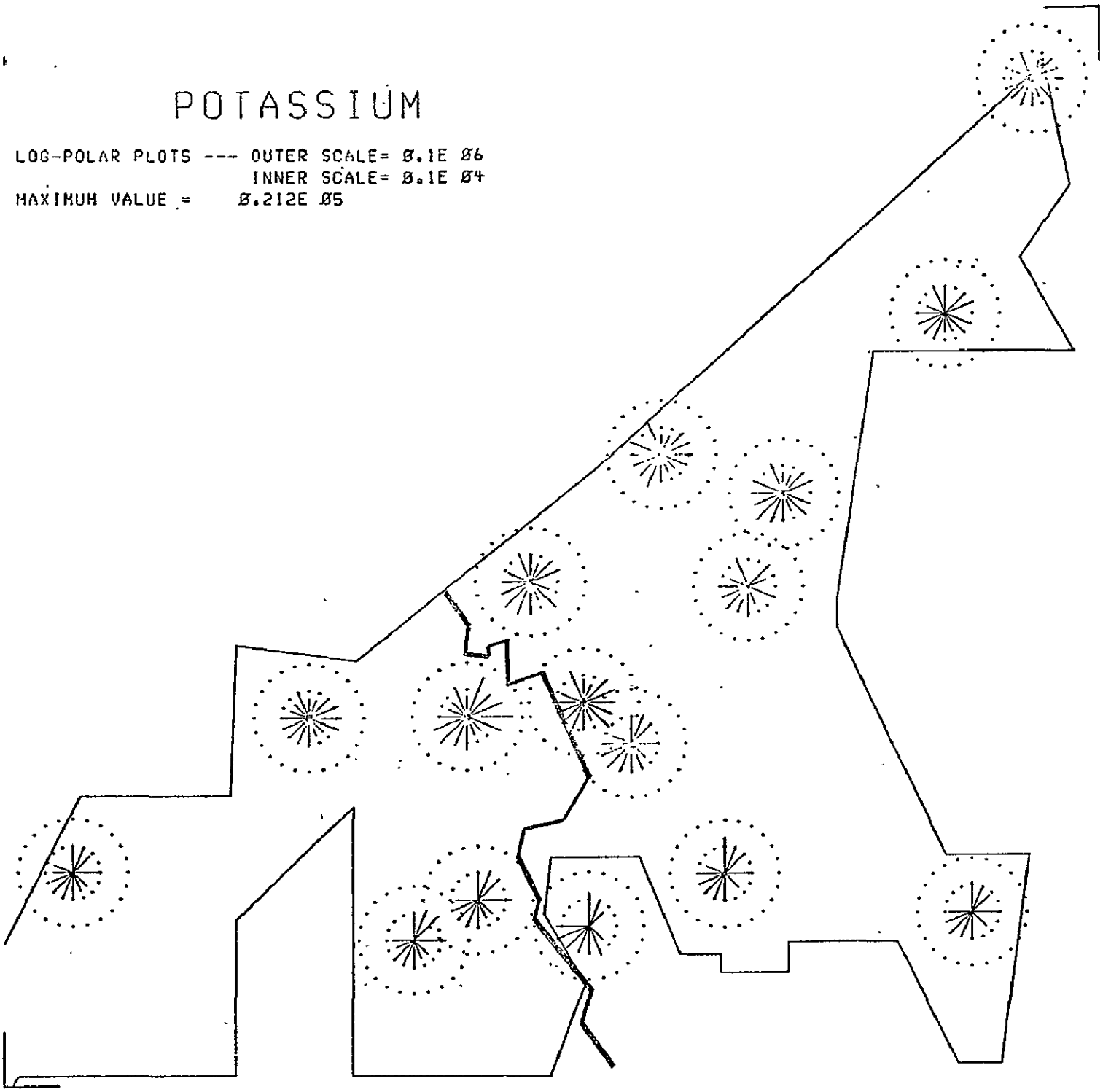
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	3	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	2	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	8	4	0	4
12	3	3	4	0	3	0	2	3	8	10	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	2	1	4	0	3	0	1	0	7	7	2	3	3	0	0	0
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	5	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

POTASSIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø6
INNER SCALE= Ø.1E Ø4
MAXIMUM VALUE = Ø.212E Ø5



POTASSIUM

NUMBER OF READINGS

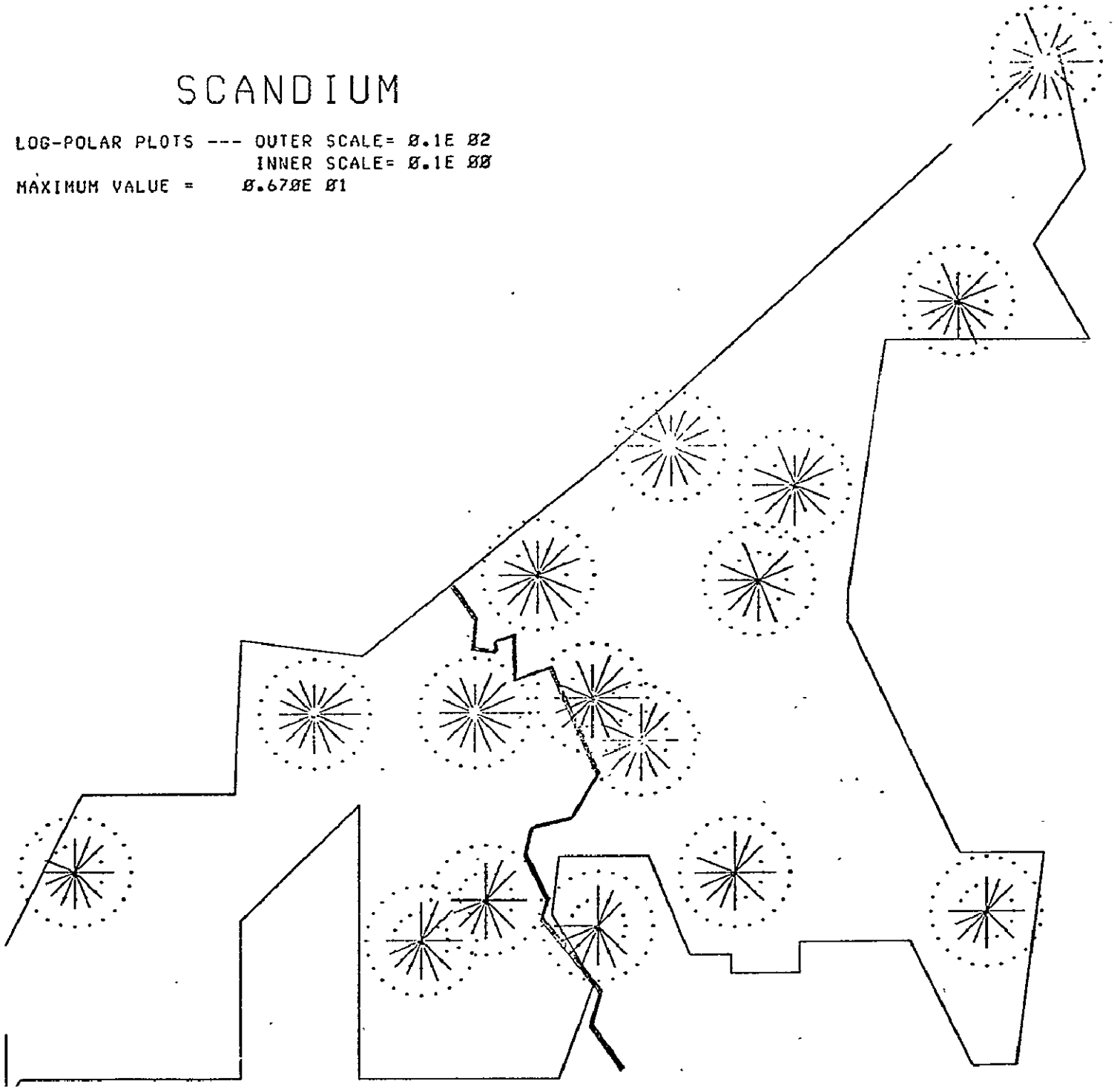
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	1	1	1	-1	1	2	5	3	3	1	Ø	4
3	3	2	2	Ø	3	Ø	-1	-1	4	7	5	1	2	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	-1	1	1	4	3	3	-1	Ø	3
5	2	2	3	Ø	3	Ø	-1	Ø	2	5	3	1	1	-1	Ø	Ø
6	1	Ø	4	3	Ø	1	1	-1	-1	1	4	2	3	-1	Ø	3
7	-1	-1	5	3	1	1	-1	-1	2	2	3	5	3	-1	-1	3
8	3	2	2	Ø	3	Ø	-1	-1	4	6	5	-1	1	Ø	Ø	Ø
9	3	1	2	Ø	3	Ø	-1	1	3	7	3	2	3	-1	Ø	Ø
10	1	-1	5	3	1	1	-1	-1	1	1	5	6	4	1	Ø	4
12	3	2	2	Ø	3	Ø	-1	-1	4	7	5	1	3	-1	Ø	Ø
13	3	3	-1	Ø	Ø	Ø	-1	1	2	5	4	1	3	Ø	Ø	Ø
14	2	1	3	Ø	3	Ø	-1	Ø	4	4	1	3	2	Ø	Ø	Ø
15	1	1	5	3	1	1	-1	-1	2	2	4	5	3	-1	-1	3
17	1	-1	4	3	Ø	1	1	-1	1	2	4	5	3	1	Ø	3
20	Ø	-1	4	2	1	Ø	1	-1	1	2	1	3	3	1	Ø	4
21	1	-1	4	1	Ø	-1	1	-1	1	2	2	3	2	1	Ø	3

— -1 INDICATES ESTIMATED VALUE

SCANDIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.67ØE Ø1



C-2

SCANDIUM

NUMBER OF READINGS

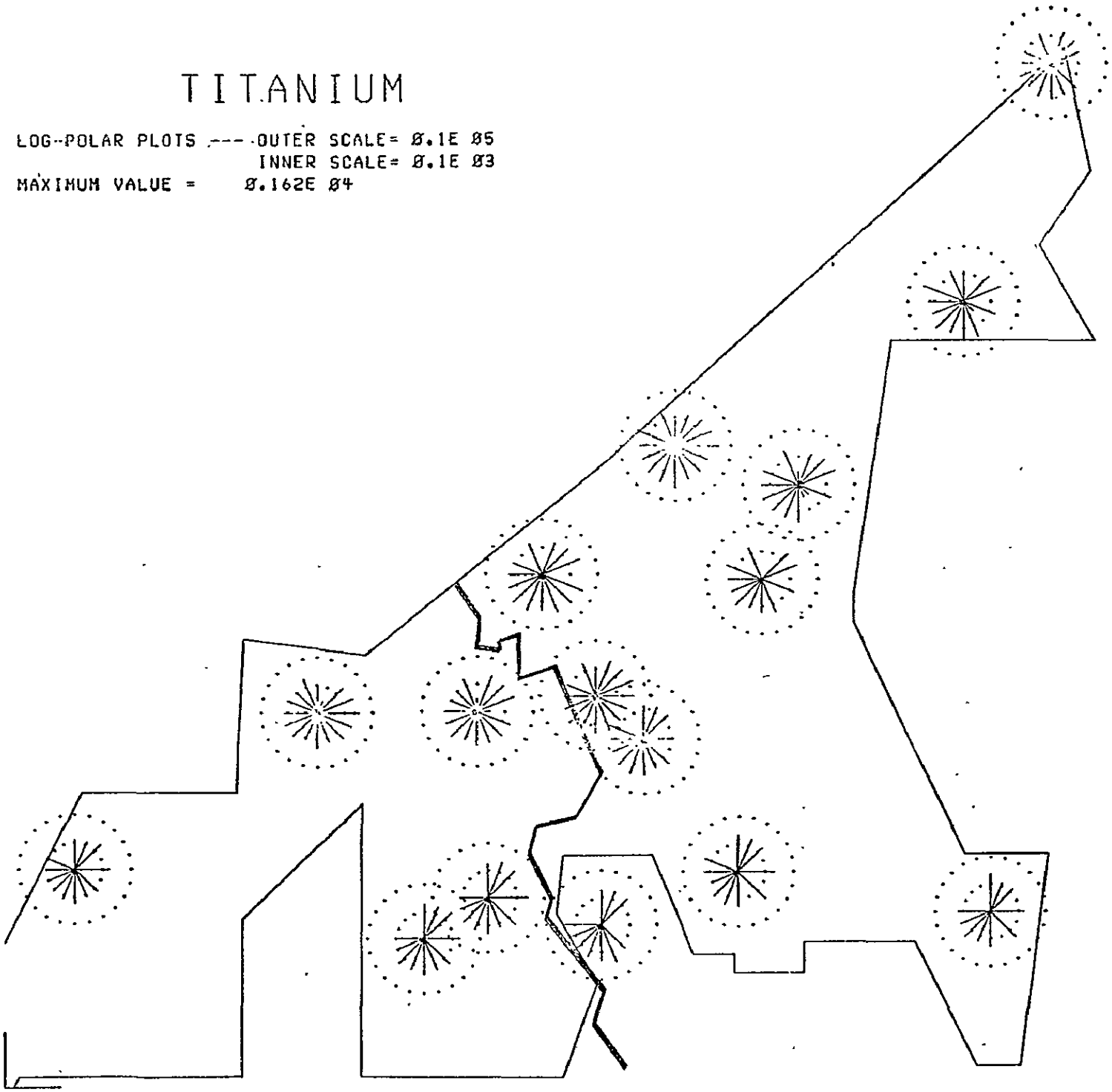
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

TITANIUM

LOG-POLAR PLOTS ---- OUTER SCALE= Ø.1E Ø5
INNER SCALE= Ø.1E Ø3
MAXIMUM VALUE = Ø.162E Ø4



TITANIUM

NUMBER OF READINGS

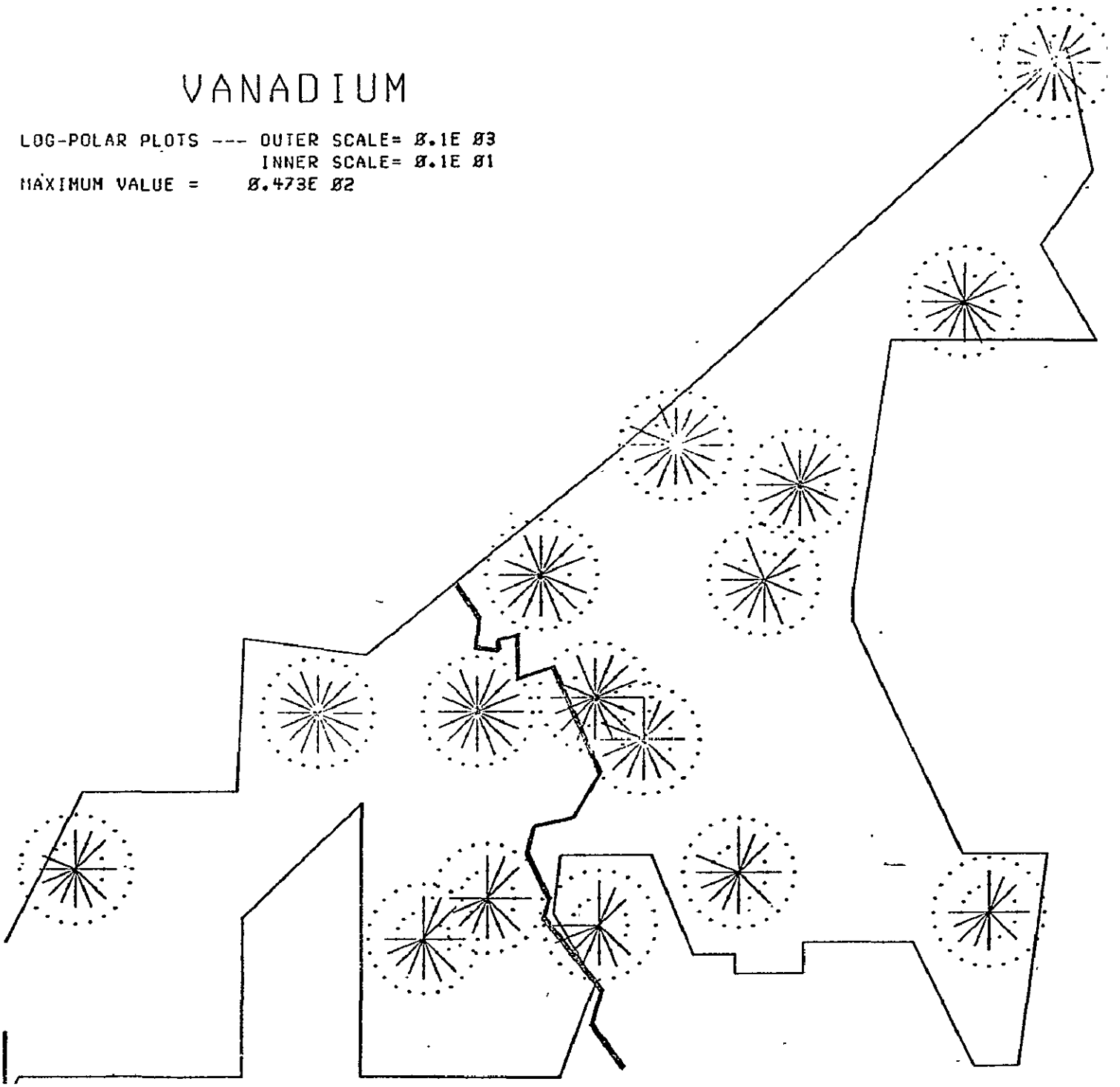
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	1	2	2	1	5	3	5	3	0	2
3	2	3	4	0	2	0	2	3	8	9	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	4	4	5	2	0	2
5	3	3	5	0	3	0	2	0	5	7	4	4	2	1	0	0
6	1	0	5	3	0	2	-1	1	1	1	5	4	4	1	0	3
7	1	1	8	4	1	2	1	2	3	2	3	7	6	3	1	2
8	3	3	4	0	3	0	2	2	7	7	5	4	2	0	0	0
9	2	2	4	0	2	0	1	2	7	5	2	4	2	1	0	0
10	1	1	8	3	1	2	1	1	2	1	3	8	7	4	0	2
12	3	2	3	0	3	0	2	3	7	6	5	3	2	1	0	0
13	3	3	1	0	0	0	1	1	4	6	3	4	3	0	0	0
14	1	1	3	0	3	0	1	0	7	7	2	1	3	0	0	0
15	-1	1	6	4	-1	2	1	2	2	2	1	4	8	4	1	3
17	-1	1	6	4	0	1	-1	-1	4	3	4	6	5	4	0	3
20	0	1	6	2	-1	0	1	2	3	1	2	4	4	2	0	4
21	0	1	6	2	0	1	1	2	3	2	2	5	4	4	0	2

-1 INDICATES ESTIMATED VALUE

VANADIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.473E Ø2



VANADIUM

NUMBER OF READINGS

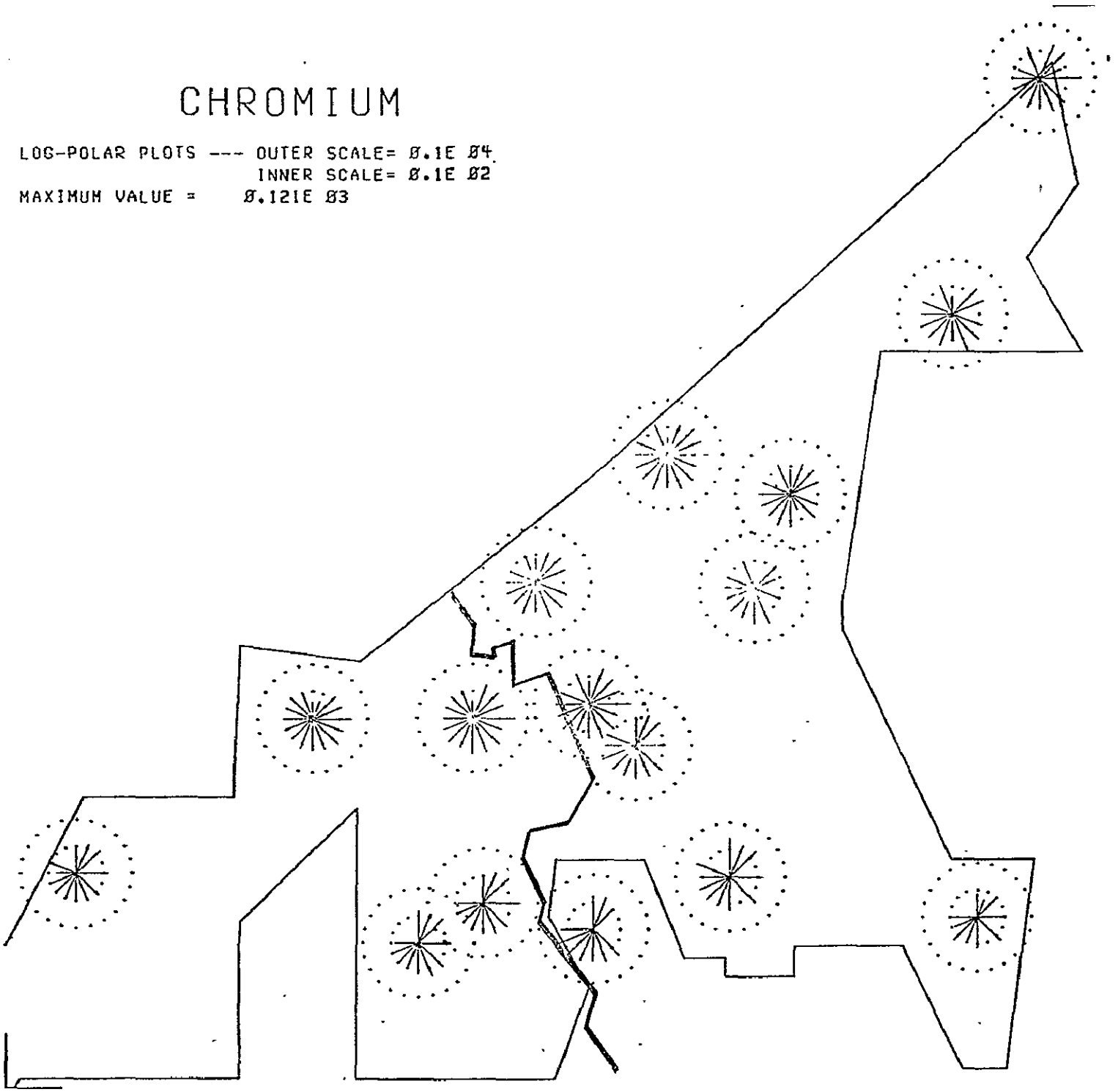
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	3	2	2	6	4	7	3	0	5
3	4	3	4	0	3	0	2	3	10	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	2	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	4
8	3	3	4	0	3	0	2	3	10	10	6	4	2	0	0	0
9	4	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	2	3	1	6	8	8	4	0	5
12	4	3	4	0	3	0	2	3	9	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	4	1	4	0	3	0	1	0	8	7	2	3	3	0	0	0
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	0	1	1	1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	3	3	2	2	4	5	2	0	5
21	1	1	7	2	0	1	2	2	3	2	4	6	6	4	0	3

— -1 INDICATES ESTIMATED VALUE

CHROMIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.121E Ø3



CHROMIUM

NUMBER OF READINGS

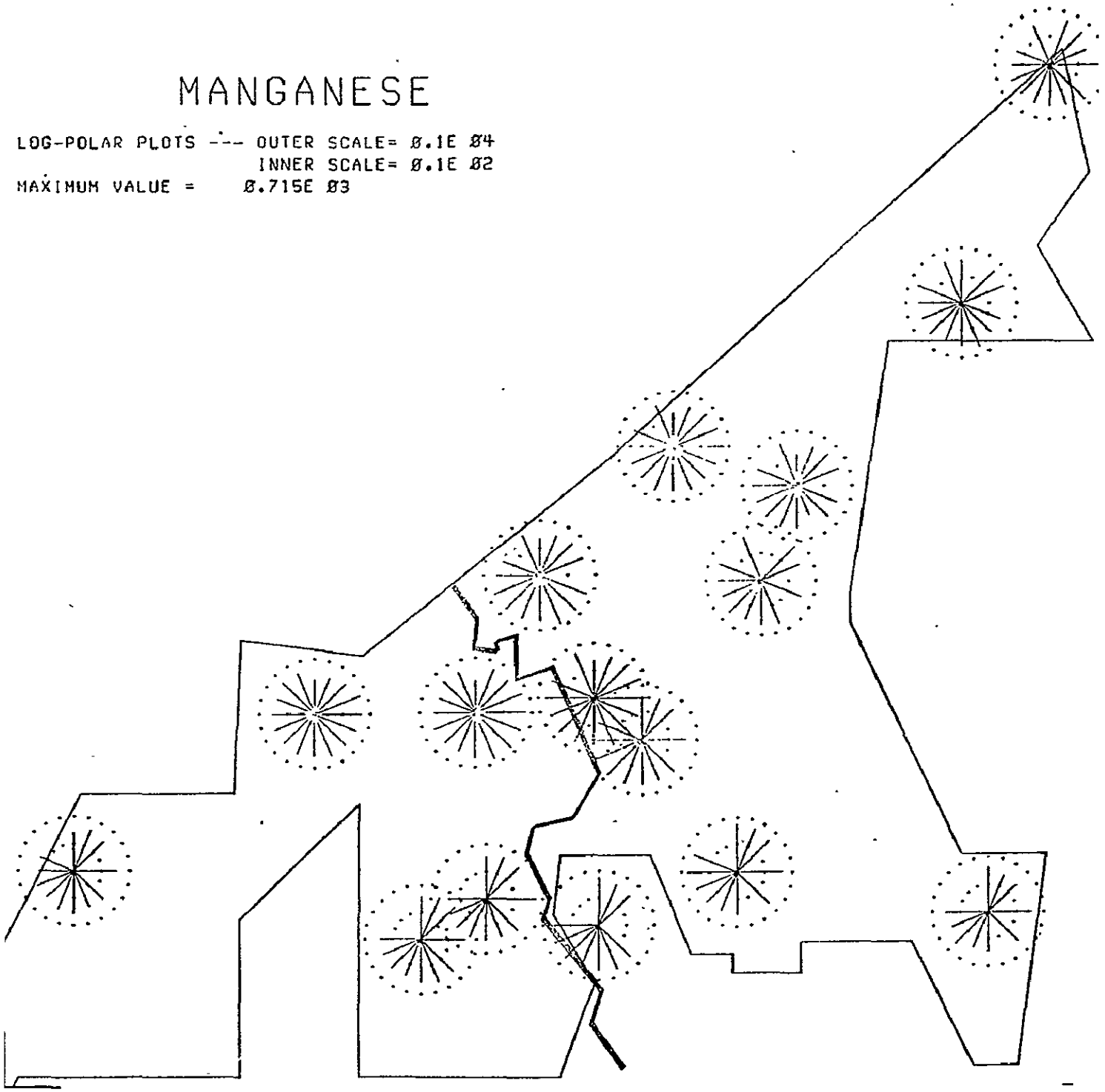
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	-1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	2	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	-1	1	8	3	1	2	1	1	3	1	6	8	8	4	0	4
12	2	3	4	0	3	0	2	3	8	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	2	1	4	0	3	0	1	0	6	5	2	3	3	0	0	0
15	-1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	4	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

MANGANESE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.715E Ø3



MANGANESE

NUMBER OF READINGS

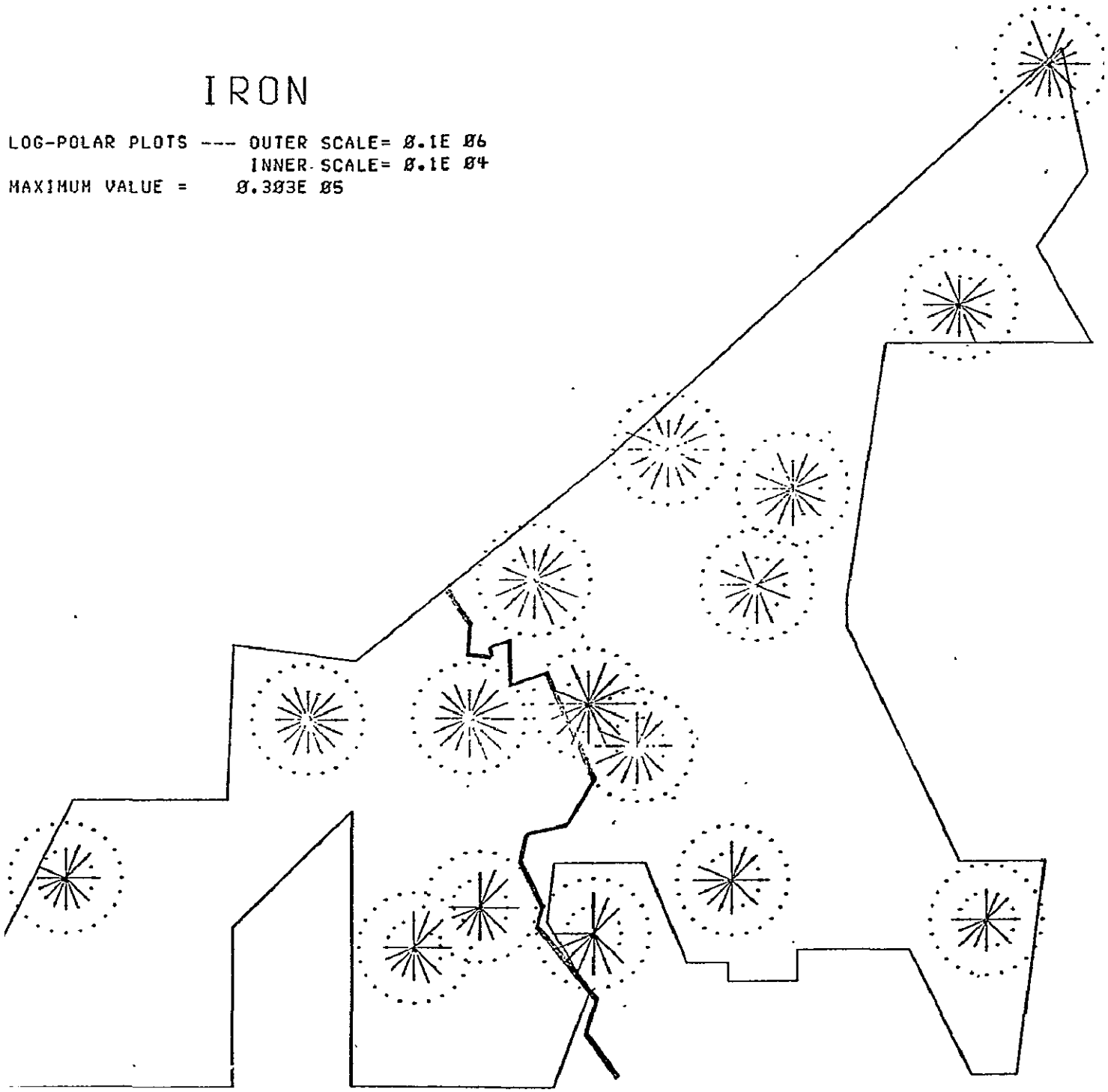
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	2	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	2	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

IRON

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø6
INNER SCALE= Ø.1E Ø4
MAXIMUM VALUE = Ø.3Ø3E Ø5



IRON

NUMBER OF READINGS

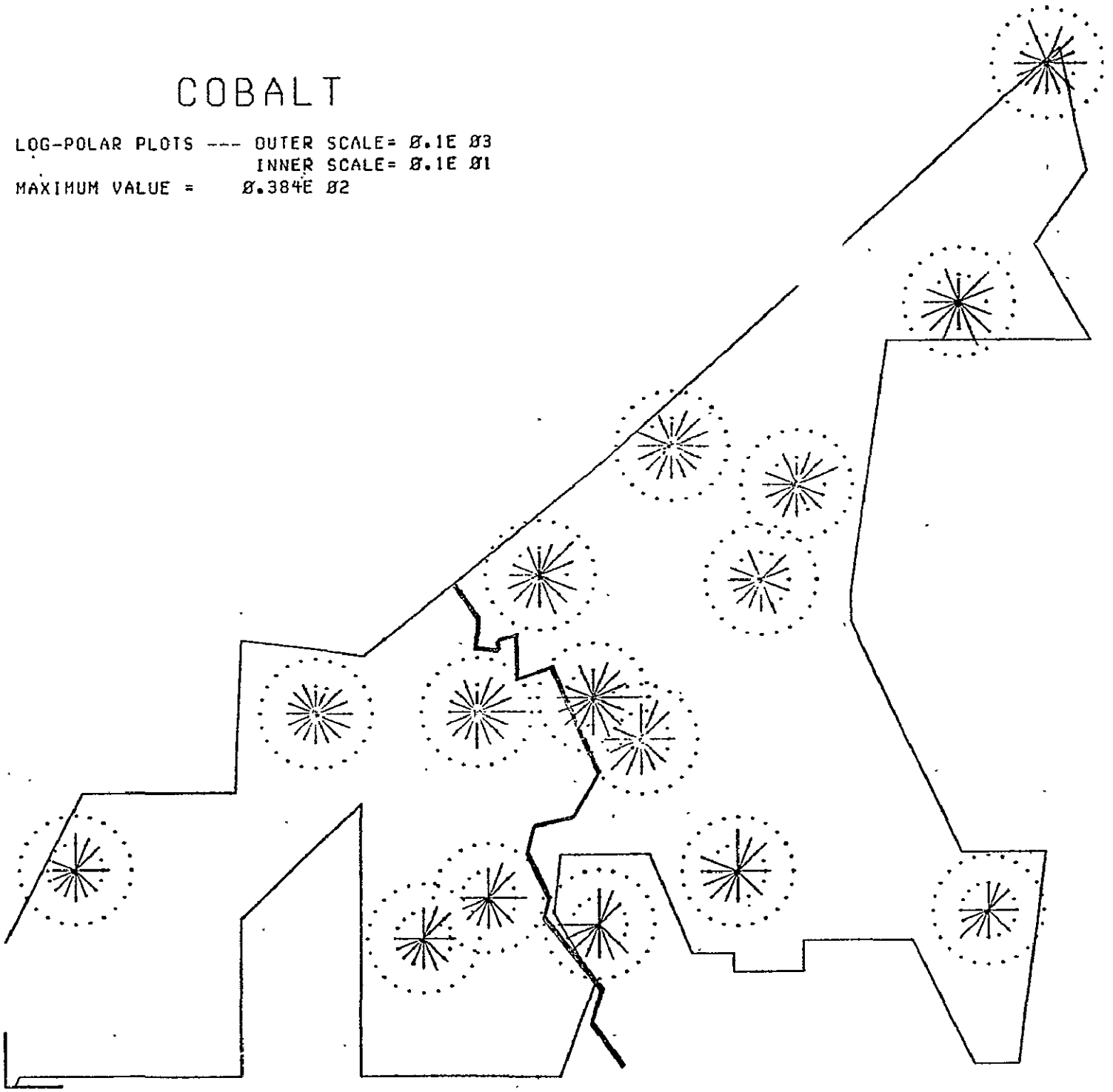
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	3	Ø	3	Ø	2	3	8	11	6	3	2	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

COBALT

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.384E Ø2



COBALT

NUMBER OF READINGS

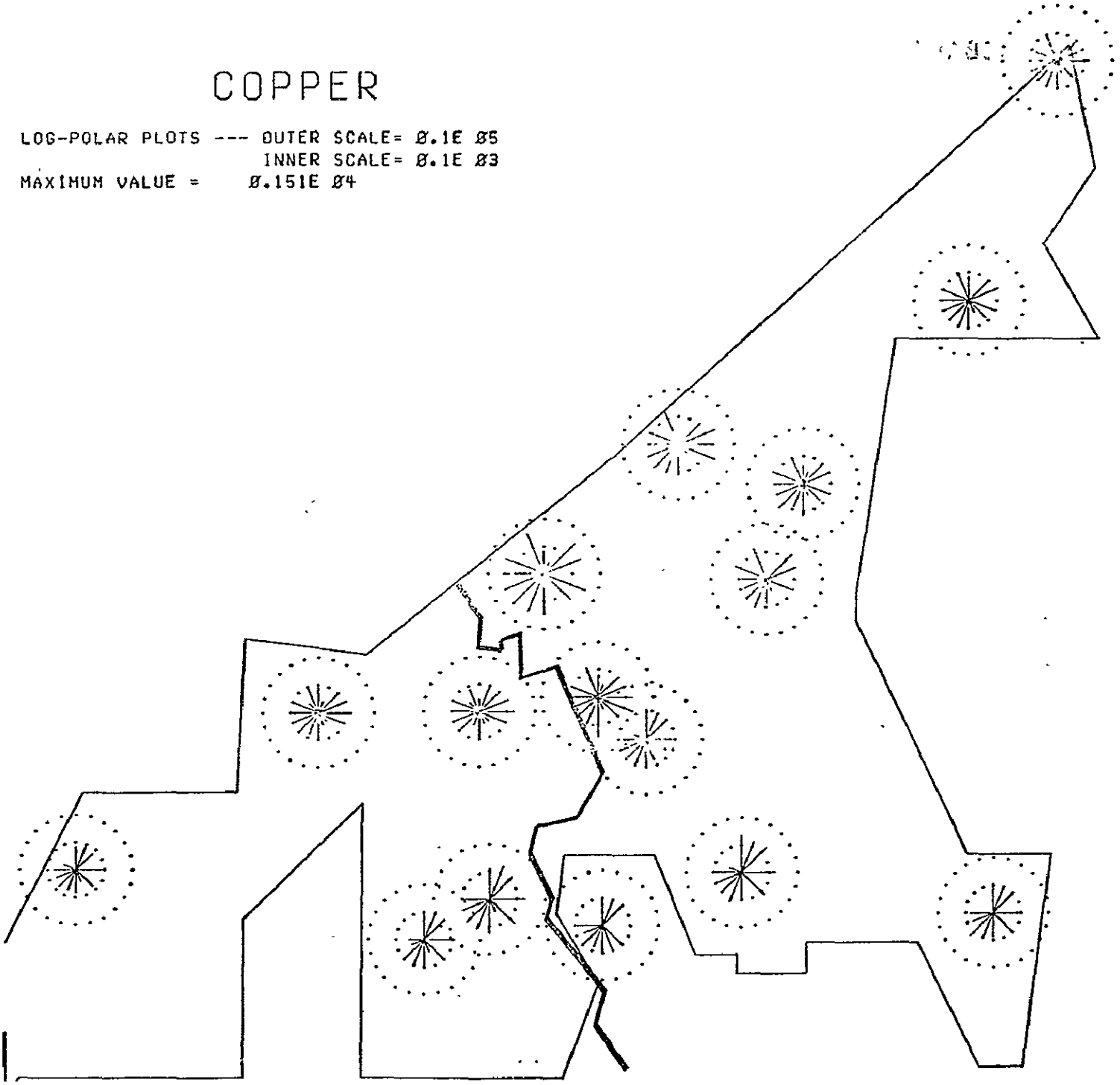
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	6	4	1	3	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

COPPER

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø5
INNER SCALE= Ø.1E Ø3
MAXIMUM VALUE = Ø.151E Ø4



COPPER

NUMBER OF READINGS

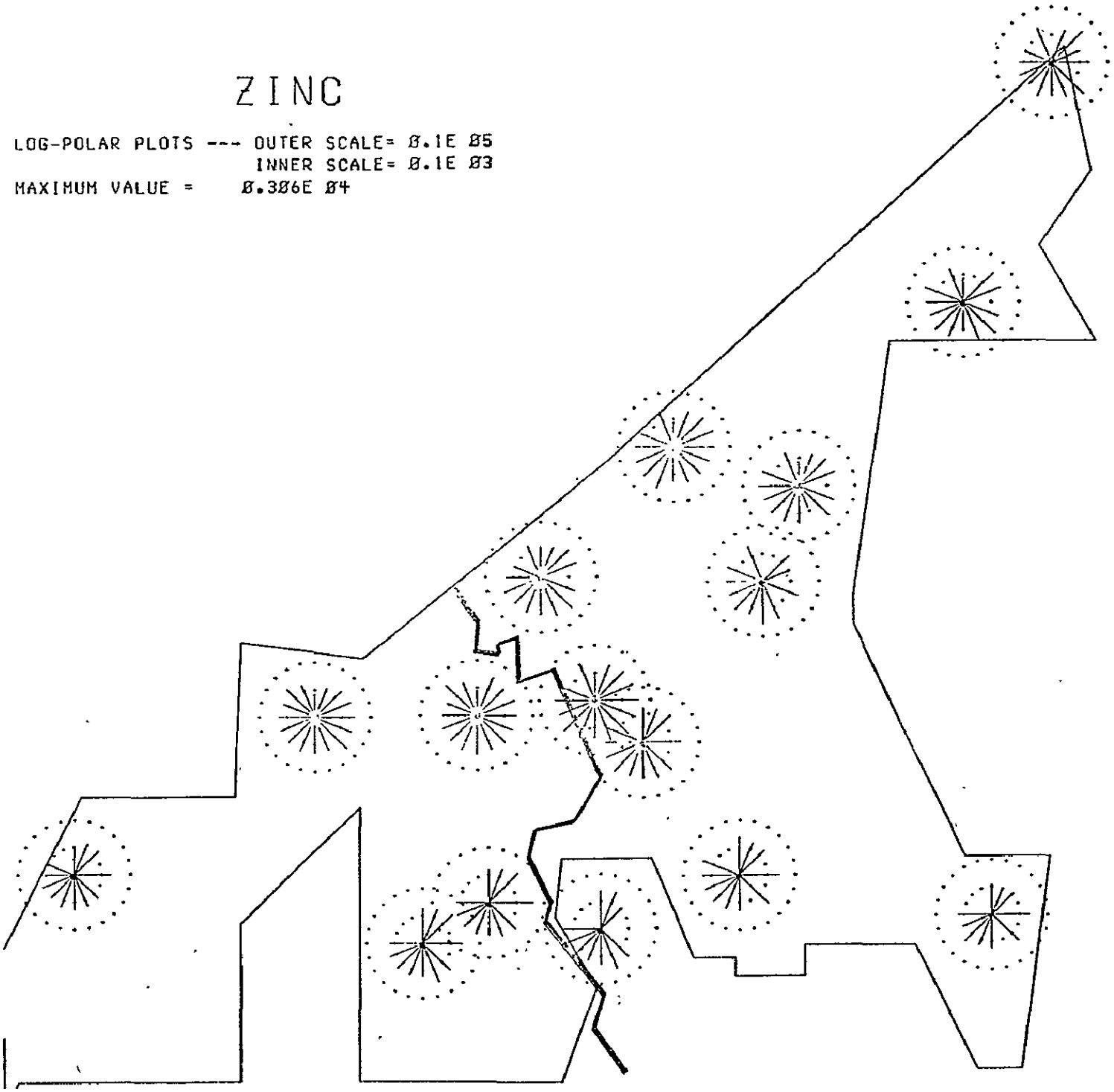
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	4	1	1	1	-1	2	2	6	3	3	1	Ø	4
3	3	2	3	Ø	3	Ø	1	-1	7	9	5	1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	2	2	4	Ø	3	Ø	1	Ø	4	7	3	1	1	-1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	-1	1	1	5	2	3	1	Ø	3
7	1	-1	6	4	1	2	-1	-1	4	2	4	5	3	1	-1	3
8	3	2	3	Ø	3	Ø	1	-1	6	8	5	-1	1	Ø	Ø	Ø
9	3	1	3	Ø	3	Ø	-1	1	5	6	2	2	3	-1	Ø	Ø
10	1	-1	6	3	1	2	-1	-1	3	1	6	6	4	2	Ø	4
12	3	2	3	Ø	3	Ø	1	-1	6	9	5	1	3	-1	Ø	Ø
13	3	3	1	Ø	Ø	Ø	1	1	4	6	4	1	3	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	6	5	1	3	2	Ø	Ø	Ø
15	-1	1	5	4	1	2	-1	-1	2	1	4	5	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	4	2	5	5	3	2	Ø	3
20	Ø	-1	4	2	1	Ø	1	-1	3	2	2	3	3	1	Ø	4
21	1	-1	4	2	Ø	1	1	-1	3	2	3	4	3	2	Ø	3

-1 INDICATES ESTIMATED VALUE

ZINC

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 05
INNER SCALE= 0.1E 03
MAXIMUM VALUE = 0.306E 04



ZINC

NUMBER OF READINGS

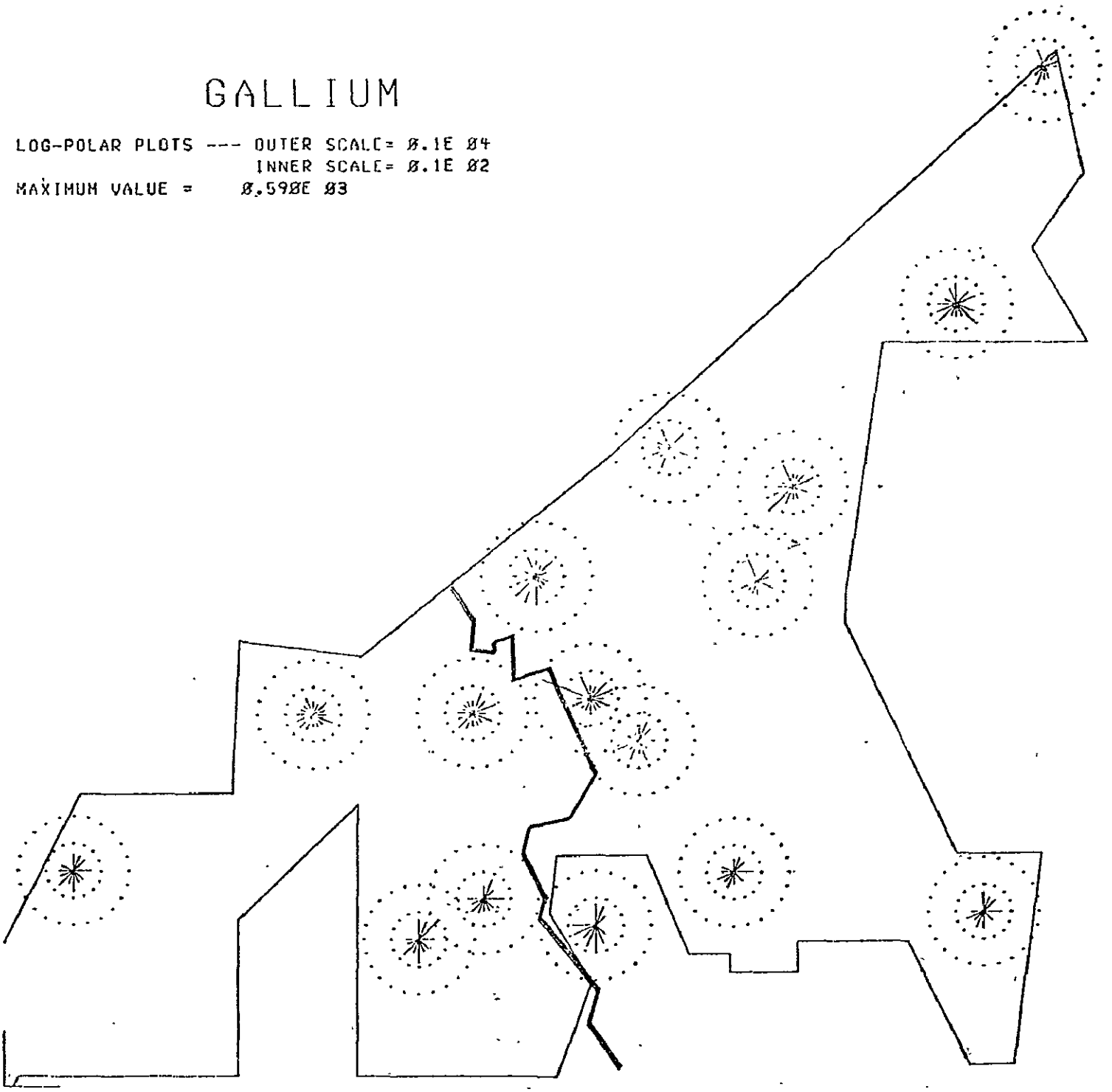
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	1	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	8	4	0	4
12	3	3	4	0	3	0	2	3	8	11	6	3	2	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	3	1	4	0	3	0	1	0	7	7	2	3	3	0	0	0
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	5	2	0	3
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

GALLIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.598E Ø3



GALLIUM

NUMBER OF READINGS

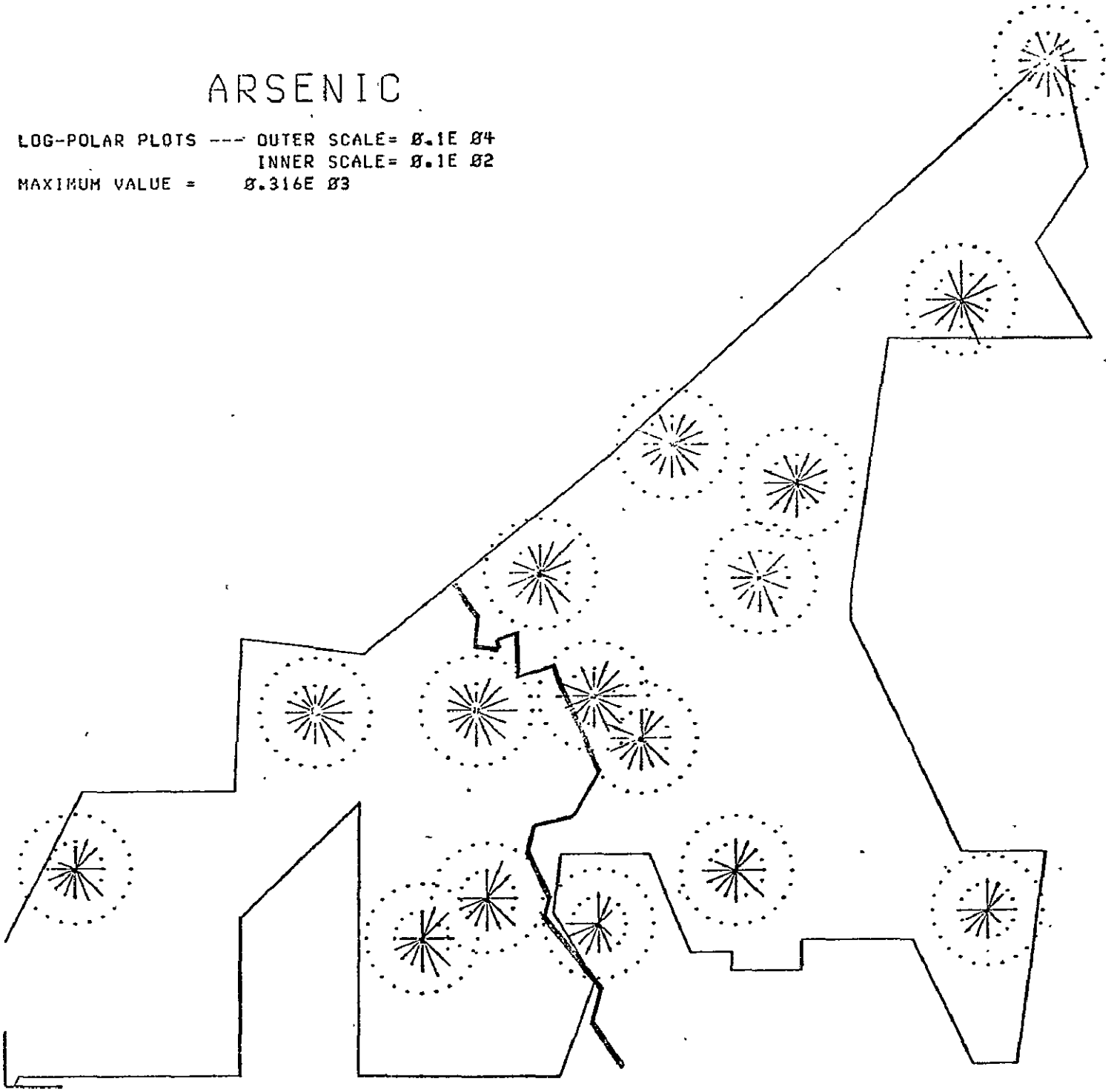
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	-1	2	1	-1	1	-1	-1	-1	-1	-1	1	1	1	0	2
3	-1	2	-1	0	2	0	-1	-1	-1	2	2	-1	1	0	0	0
4	0	0	1	-1	0	1	0	-1	-1	-1	-1	3	-1	-1	0	3
5	-1	1	2	0	2	0	-1	0	-1	2	-1	1	-1	-1	0	0
6	1	0	1	1	0	1	1	-1	-1	-1	4	2	2	-1	0	1
7	-1	-1	1	-1	-1	1	-1	-1	-1	1	1	3	1	-1	-1	2
8	1	1	1	0	2	0	-1	-1	1	3	1	-1	-1	0	0	0
9	-1	1	2	0	1	0	-1	1	-1	2	-1	2	2	-1	0	0
10	-1	-1	3	-1	-1	1	-1	-1	-1	1	-1	4	2	-1	0	1
12	1	1	1	0	2	0	-1	-1	2	4	1	1	1	-1	0	0
13	1	1	-1	0	0	0	-1	1	1	4	3	1	2	0	0	0
14	1	1	1	0	1	0	-1	0	2	2	-1	2	-1	0	0	0
15	-1	1	2	1	-1	1	-1	-1	-1	2	1	3	1	-1	-1	-1
17	-1	-1	2	2	0	1	-1	-1	-1	1	1	4	2	-1	0	2
20	0	-1	3	2	-1	0	-1	-1	-1	1	-1	2	2	-1	0	1
21	1	-1	4	-1	0	-1	-1	-1	1	2	2	2	1	-1	0	2

-1 INDICATES ESTIMATED VALUE

ARSENIC

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.316E Ø3



ARSENIC

NUMBER OF READINGS

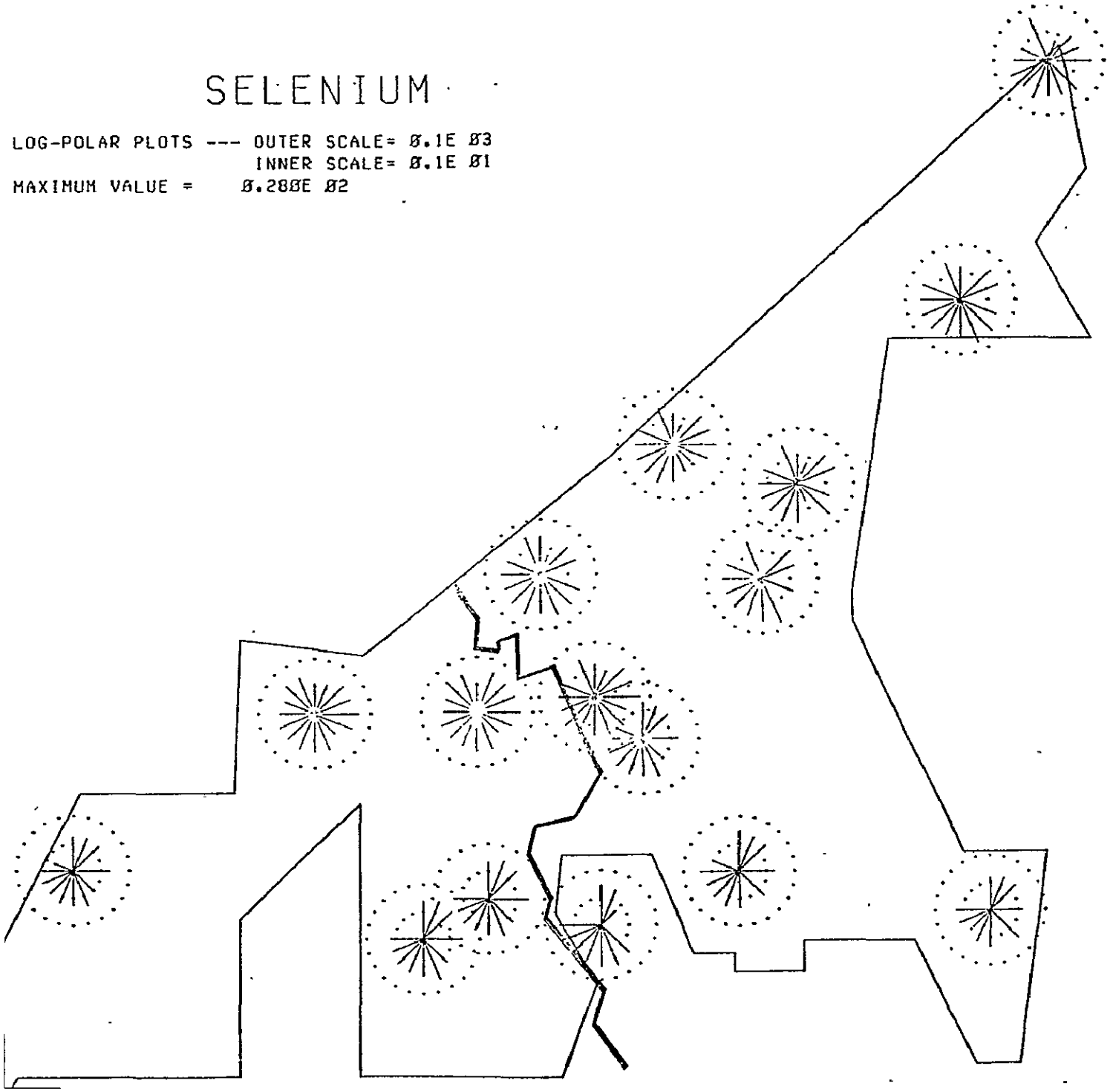
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	1	1	2	2	1	2	5	4	7	3	0	4
3	2	3	3	0	3	0	1	3	6	8	6	4	4	0	0	0
4	0	0	2	-1	0	1	0	1	1	2	4	4	4	1	0	3
5	3	3	4	0	3	0	1	0	4	6	4	4	2	1	0	0
6	1	0	4	3	0	1	1	1	-1	1	4	4	5	-1	0	3
7	-1	1	7	3	1	1	1	2	2	3	3	6	7	2	-1	3
8	3	3	3	0	3	0	1	3	6	7	5	3	2	0	0	0
9	3	2	3	0	3	0	1	2	5	7	4	5	4	1	0	0
10	1	1	7	3	1	1	1	1	1	1	5	8	8	3	0	4
12	3	3	3	0	2	0	1	2	5	6	6	3	3	-1	0	0
13	3	4	-1	0	0	0	-1	1	2	6	4	2	4	0	0	0
14	2	1	3	0	3	0	-1	0	4	5	2	3	3	0	0	0
15	1	2	7	3	1	1	1	2	2	3	4	7	6	3	1	3
17	1	1	6	3	0	1	1	-1	1	3	4	6	5	3	0	3
20	0	1	6	2	1	0	2	2	1	2	1	4	5	2	0	4
21	1	1	7	1	0	-1	2	2	2	2	2	6	6	2	0	3

-1 INDICATES ESTIMATED VALUE

SELENIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.288E Ø2



SELENIUM

NUMBER OF READINGS

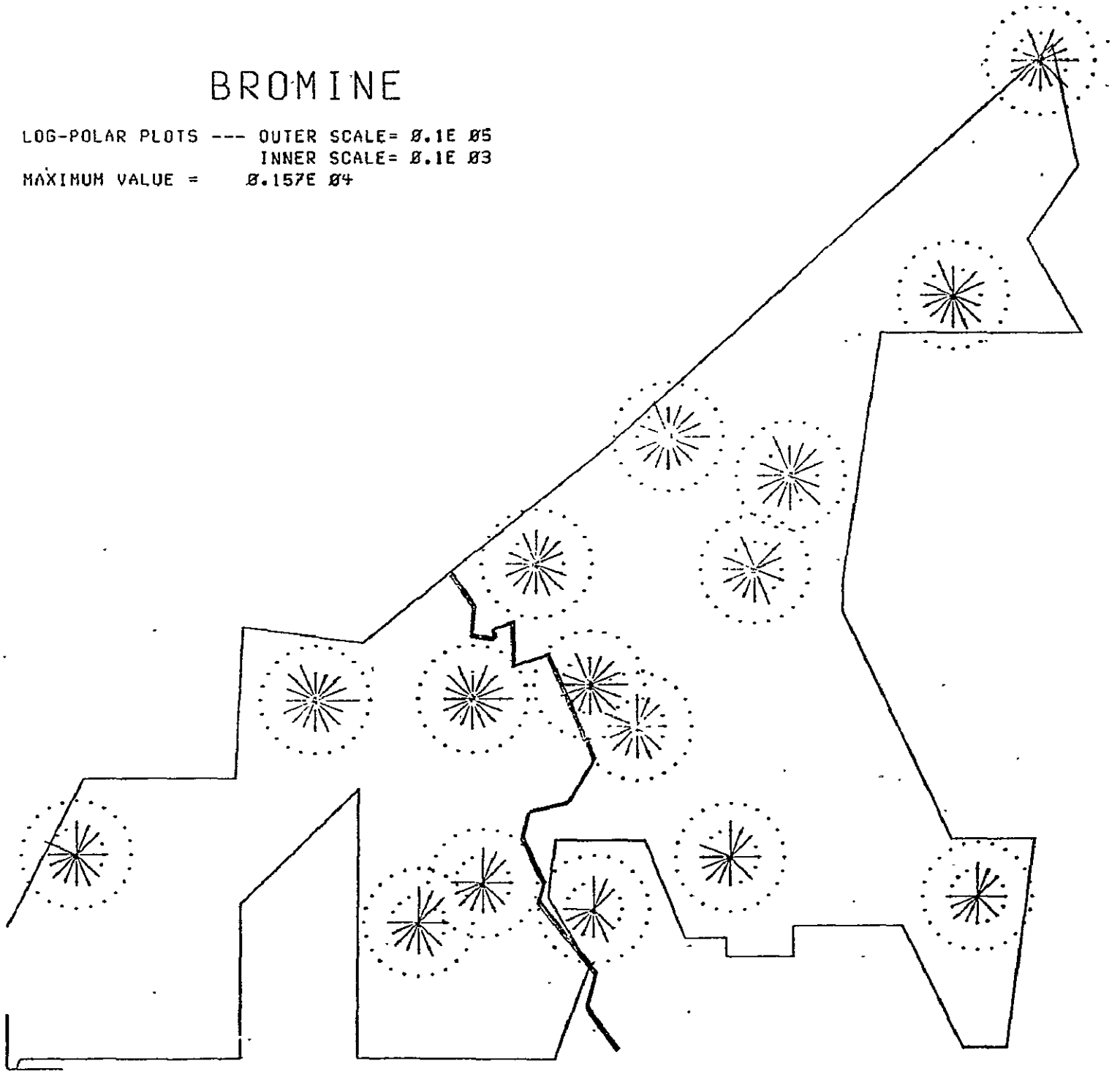
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	2	0	1	1	1	1	1	5	4	5	1	0	2
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	0	3	0	2	3	9	10	6	4	2	0	0	0
9	3	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	1	3	1	6	8	7	4	0	4
12	3	3	4	0	3	0	2	3	8	11	6	3	3	1	0	0
13	3	4	-1	0	0	0	1	1	3	5	3	3	3	0	0	0
14	3	1	4	0	3	0	1	0	7	7	1	3	3	0	0	0
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	0	1	1	-1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	2	3	2	2	4	5	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

BROMINE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø5
INNER SCALE= Ø.1E Ø3
MAXIMUM VALUE = Ø.157E Ø4



BROMINE

NUMBER OF READINGS

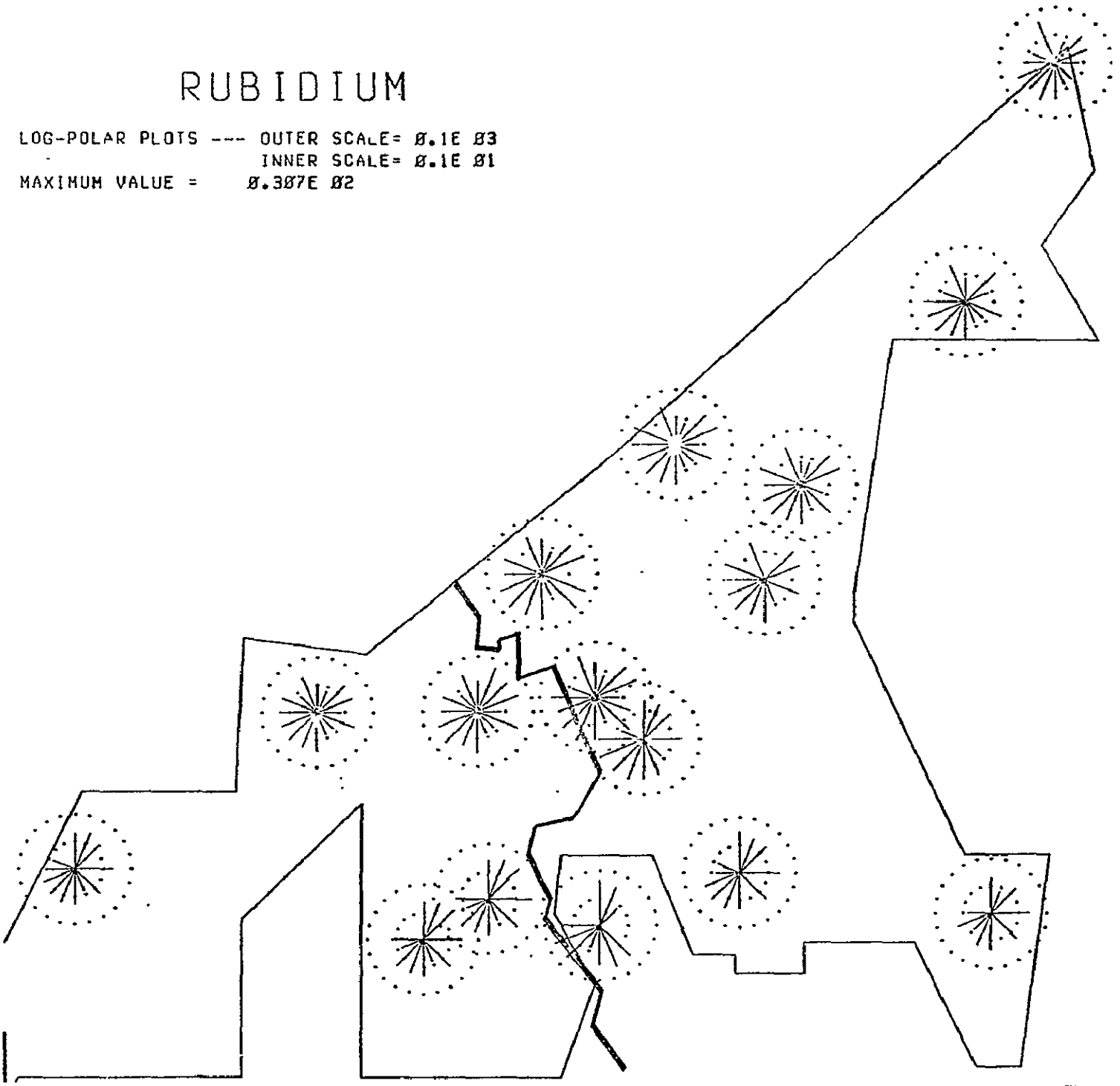
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	3	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	8	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	1	Ø	1	2	2	3	2	3	6	6	4	Ø	3

_ -1 INDICATES ESTIMATED VALUE

RUBIDIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.387E Ø2



RUBIDIUM

NUMBER OF READINGS

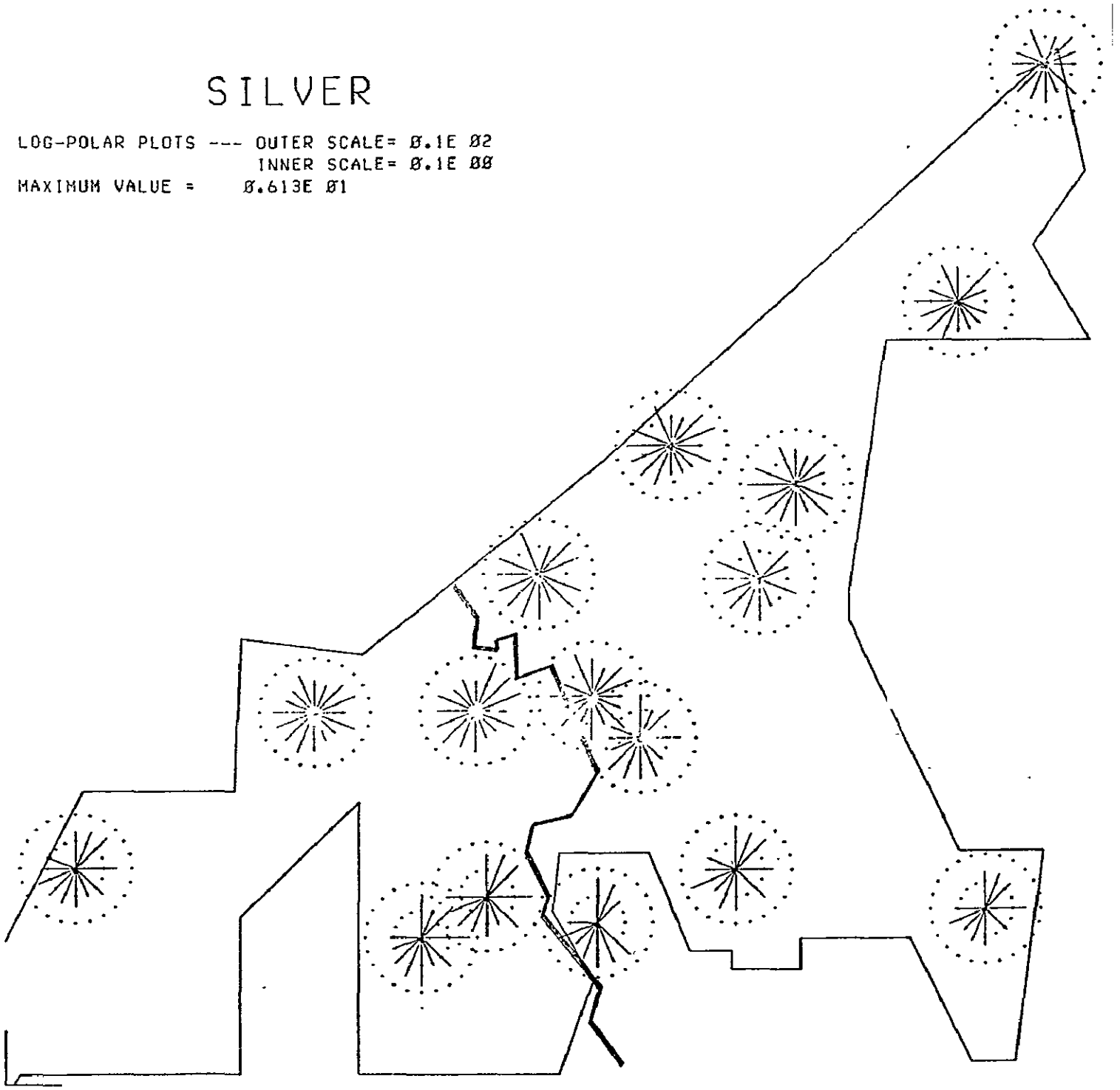
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	-1	1	1	-1	1	2	6	3	2	-1	3	4
3	3	2	2	0	3	0	1	-1	6	7	4	-1	2	0	0	0
4	0	0	2	1	0	2	0	-1	1	1	4	2	3	1	0	3
5	1	2	3	0	3	0	1	0	4	5	1	1	-1	-1	0	0
6	-1	0	4	-1	0	1	-1	-1	1	1	2	1	2	-1	0	2
7	1	-1	5	3	-1	2	-1	-1	3	2	4	4	1	1	-1	3
8	3	1	2	0	3	0	1	-1	6	7	4	-1	1	0	0	0
9	1	1	3	0	3	0	-1	1	4	8	3	1	2	-1	0	0
10	1	-1	6	2	-1	1	-1	-1	2	1	6	5	4	1	3	4
12	2	1	2	0	3	0	1	-1	6	6	4	1	2	-1	0	0
13	2	2	-1	0	0	0	1	1	2	-1	1	1	1	0	0	0
14	2	-1	4	0	3	0	1	0	5	6	-1	2	-1	0	0	0
15	1	1	5	4	-1	2	-1	-1	1	2	4	4	4	1	-1	3
17	1	-1	5	4	0	-1	1	-1	3	2	5	4	2	1	0	3
20	0	-1	3	2	-1	0	-1	-1	2	1	2	1	1	-1	0	3
21	1	-1	5	1	0	1	1	-1	3	2	2	1	3	1	0	3

- -1 INDICATES ESTIMATED VALUE

SILVER

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.613E Ø1



SILVER

NUMBER OF READINGS

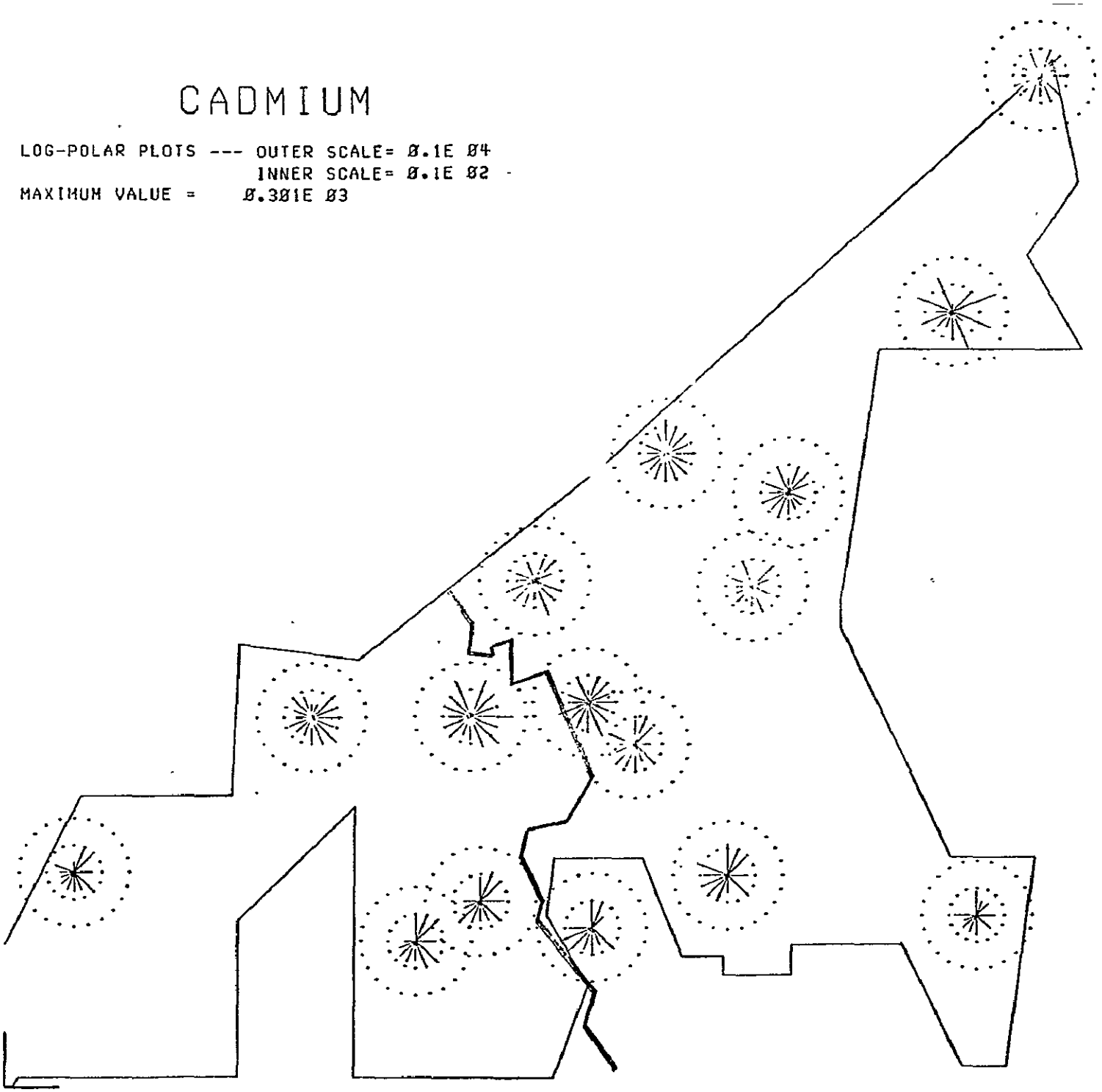
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	-1	-1	1	-1	1	2	3	-1	3	-1	Ø	2
3	2	1	2	Ø	2	Ø	1	-1	5	5	2	1	2	Ø	Ø	Ø
4	Ø	Ø	1	-1	Ø	2	Ø	-1	1	1	3	2	2	1	Ø	1
5	2	2	4	Ø	1	Ø	1	Ø	1	6	-1	1	-1	-1	Ø	Ø
6	1	Ø	2	-1	Ø	-1	-1	-1	-1	1	3	2	2	-1	Ø	1
7	1	-1	3	3	-1	2	-1	-1	3	1	3	5	3	-1	-1	3
8	1	-1	3	Ø	2	Ø	1	-1	5	3	1	-1	-1	Ø	Ø	Ø
9	1	-1	2	Ø	2	Ø	-1	1	3	6	1	-1	-1	-1	Ø	Ø
10	1	-1	6	2	-1	1	-1	-1	-1	1	6	4	3	1	Ø	3
12	1	2	2	Ø	1	Ø	1	-1	4	6	4	1	2	-1	Ø	Ø
13	2	2	-1	Ø	Ø	Ø	1	1	3	2	-1	1	-1	Ø	Ø	Ø
14	1	1	3	Ø	1	Ø	-1	Ø	2	2	-1	1	-1	Ø	Ø	Ø
15	-1	1	2	1	-1	2	-1	-1	1	2	4	4	4	1	-1	1
17	1	-1	1	-1	Ø	1	1	-1	1	1	4	4	2	1	Ø	2
20	Ø	-1	3	1	-1	Ø	1	-1	1	1	2	-1	2	-1	Ø	2
21	Ø	-1	5	2	Ø	1	1	-1	3	2	3	2	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

CADMIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.381E Ø3



CADMIUM

NUMBER OF READINGS

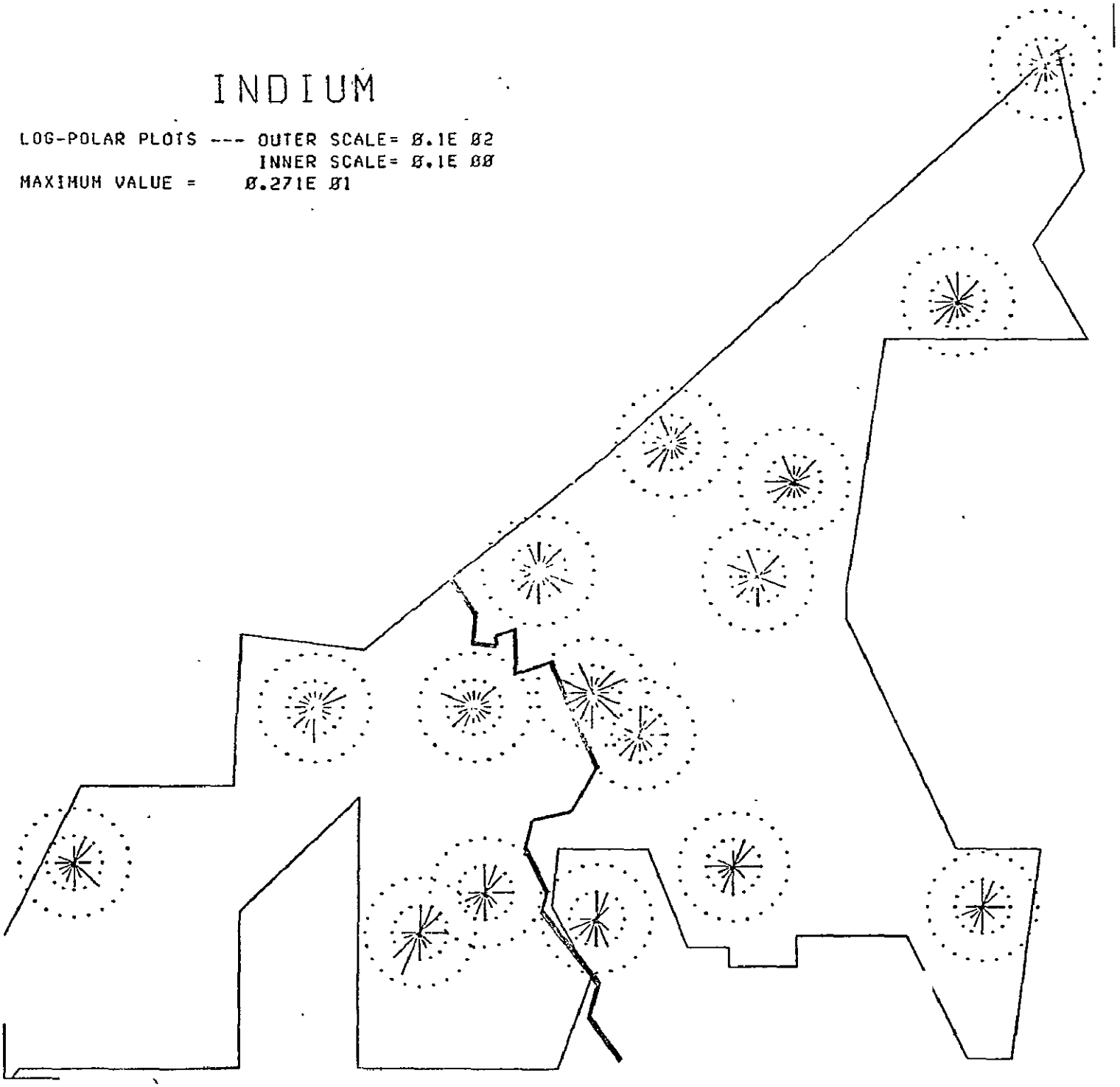
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	3	2	2	5	4	7	3	Ø	4
3	4	3	4	Ø	3	Ø	2	3	1Ø	11	6	5	3	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	2	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	1Ø	1Ø	6	3	2	Ø	Ø	Ø
9	4	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	2	3	1	6	8	7	4	Ø	5
12	4	3	4	Ø	3	Ø	2	3	9	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	4	1	4	Ø	3	Ø	1	Ø	8	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	Ø	1	1	1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	3	3	2	2	4	5	2	Ø	5
21	Ø	1	7	2	Ø	1	2	2	2	2	4	6	6	4	Ø	3

-1 INDICATES ESTIMATED VALUE

INDIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.271E Ø1



INDIUM

NUMBER OF READINGS

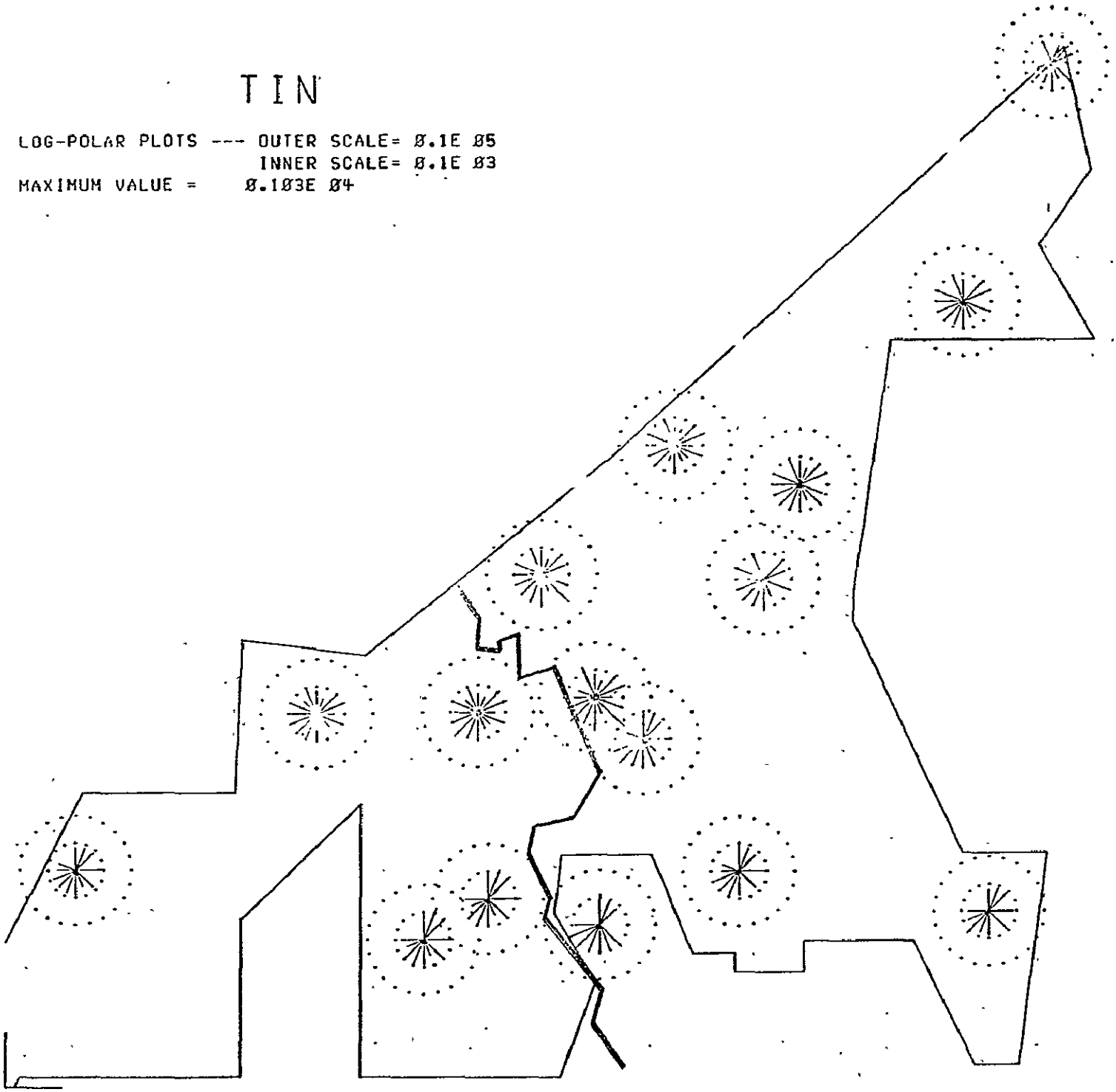
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	-1	3	2	-1	1	1	-1	1	1	4	2	1	1	Ø	2
3	2	2	1	Ø	2	Ø	-1	-1	1	2	-1	1	-1	Ø	Ø	Ø
4	Ø	Ø	1	-1	Ø	1	Ø	-1	1	-1	2	1	1	1	Ø	1
5	-1	1	1	Ø	1	Ø	-1	Ø	1	1	-1	-1	1	-1	Ø	Ø
6	1	Ø	1	-1	Ø	-1	-1	-1	-1	1	1	1	1	-1	Ø	1
7	-1	-1	4	1	-1	-1	-1	-1	1	1	1	-1	1	-1	-1	-1
8	1	1	2	Ø	2	Ø	-1	-1	1	2	2	-1	1	Ø	Ø	Ø
9	1	-1	1	Ø	2	Ø	-1	-1	-1	2	1	-1	-1	-1	Ø	Ø
10	-1	-1	4	-1	-1	-1	-1	-1	-1	1	3	3	1	-1	Ø	1
12	-1	1	2	Ø	-1	Ø	1	-1	2	1	-1	-1	1	-1	Ø	Ø
13	1	3	-1	Ø	Ø	Ø	-1	1	2	2	1	1	-1	Ø	Ø	Ø
14	1	1	2	Ø	1	Ø	-1	Ø	3	3	-1	2	-1	Ø	Ø	Ø
15	-1	-1	3	-1	-1	-1	-1	-1	-1	1	2	-1	1	1	-1	-1
17	-1	-1	4	-1	Ø	-1	-1	-1	-1	-1	1	2	3	-1	Ø	1
20	Ø	-1	2	1	-1	Ø	-1	-1	-1	1	-1	-1	2	-1	Ø	2
21	1	-1	2	-1	Ø	1	1	-1	2	1	1	-1	1	-1	Ø	1

-1 INDICATES ESTIMATED VALUE

TIN

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø5
INNER SCALE= Ø.1E Ø3
MAXIMUM VALUE = Ø.1Ø3E Ø4



TIN

NUMBER OF READINGS

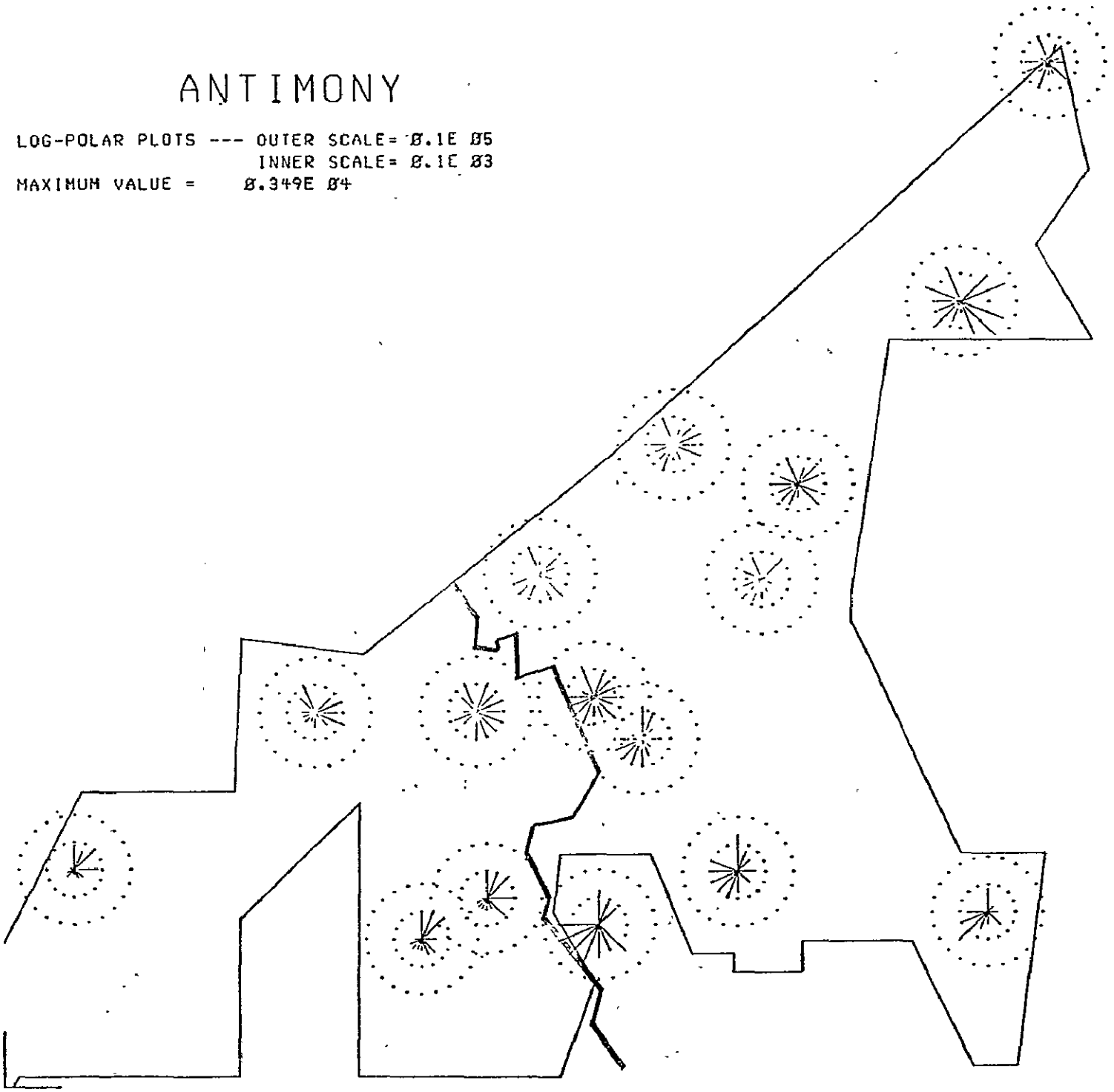
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	3	3	-1	1	1	-1	1	1	6	2	3	-1	Ø	4
3	2	2	3	Ø	3	Ø	1	-1	6	8	4	-1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	2	2	3	Ø	2	Ø	1	Ø	4	6	2	1	-1	-1	Ø	Ø
6	1	Ø	5	2	Ø	1	-1	-1	1	1	4	1	3	1	Ø	3
7	1	-1	5	4	-1	2	-1	-1	3	1	4	4	3	1	-1	3
8	3	2	3	Ø	3	Ø	1	-1	6	6	4	-1	1	Ø	Ø	Ø
9	3	1	2	Ø	3	Ø	-1	1	5	8	3	2	2	-1	Ø	Ø
10	1	-1	6	3	-1	2	-1	-1	2	-1	6	4	4	1	Ø	4
12	2	2	3	Ø	3	Ø	1	-1	6	7	4	1	2	-1	Ø	Ø
13	2	3	1	Ø	Ø	Ø	1	1	3	4	1	1	1	Ø	Ø	Ø
14	3	1	3	Ø	3	Ø	1	Ø	6	6	1	3	1	Ø	Ø	Ø
15	1	-1	4	4	-1	2	-1	-1	1	1	4	4	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	3	1	5	4	3	1	Ø	3
20	Ø	-1	4	2	-1	Ø	1	-1	1	1	2	2	3	-1	Ø	2
21	1	-1	4	2	Ø	1	1	-1	3	1	3	2	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

ANTIMONY

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø5
INNER SCALE= Ø.1E Ø3
MAXIMUM VALUE = Ø.349E Ø4



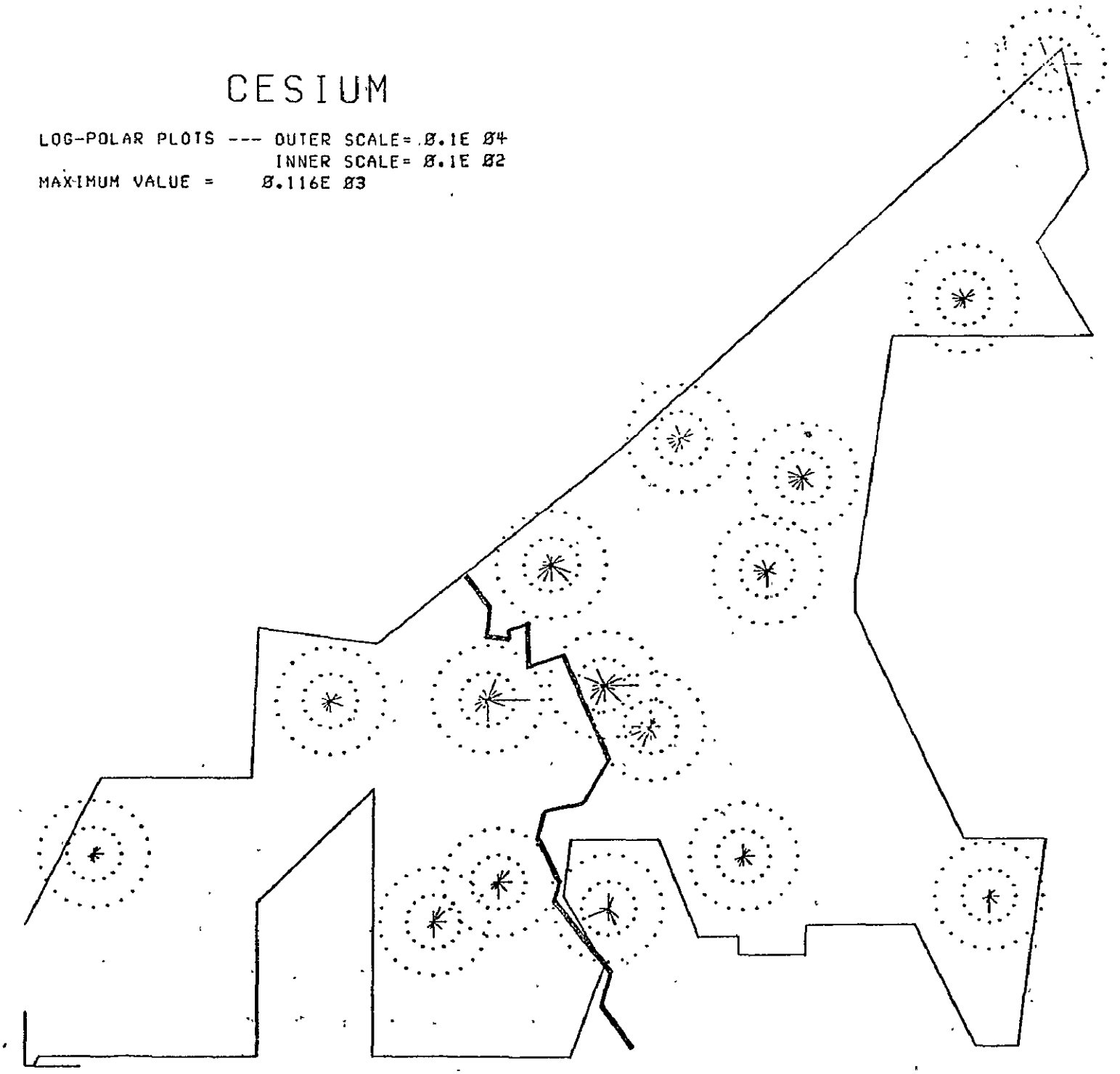
ANTIMONY

NUMBER OF READINGS

WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	5	4	1	1	2	2	2	2	6	4	7	3	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	5	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	5	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	1	1	1	5	4	5	1	Ø	3
7	1	1	7	4	1	2	1	2	4	3	4	7	7	3	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	3	2	Ø	Ø	Ø
9	3	1	4	Ø	3	Ø	1	2	8	9	3	5	4	-1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	2	3	8	11	5	2	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	6	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	7	4	1	3
17	1	1	7	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

— -1 INDICATES ESTIMATED VALUE


CESIUM
LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.116E Ø3

CESIUM

NUMBER OF READINGS

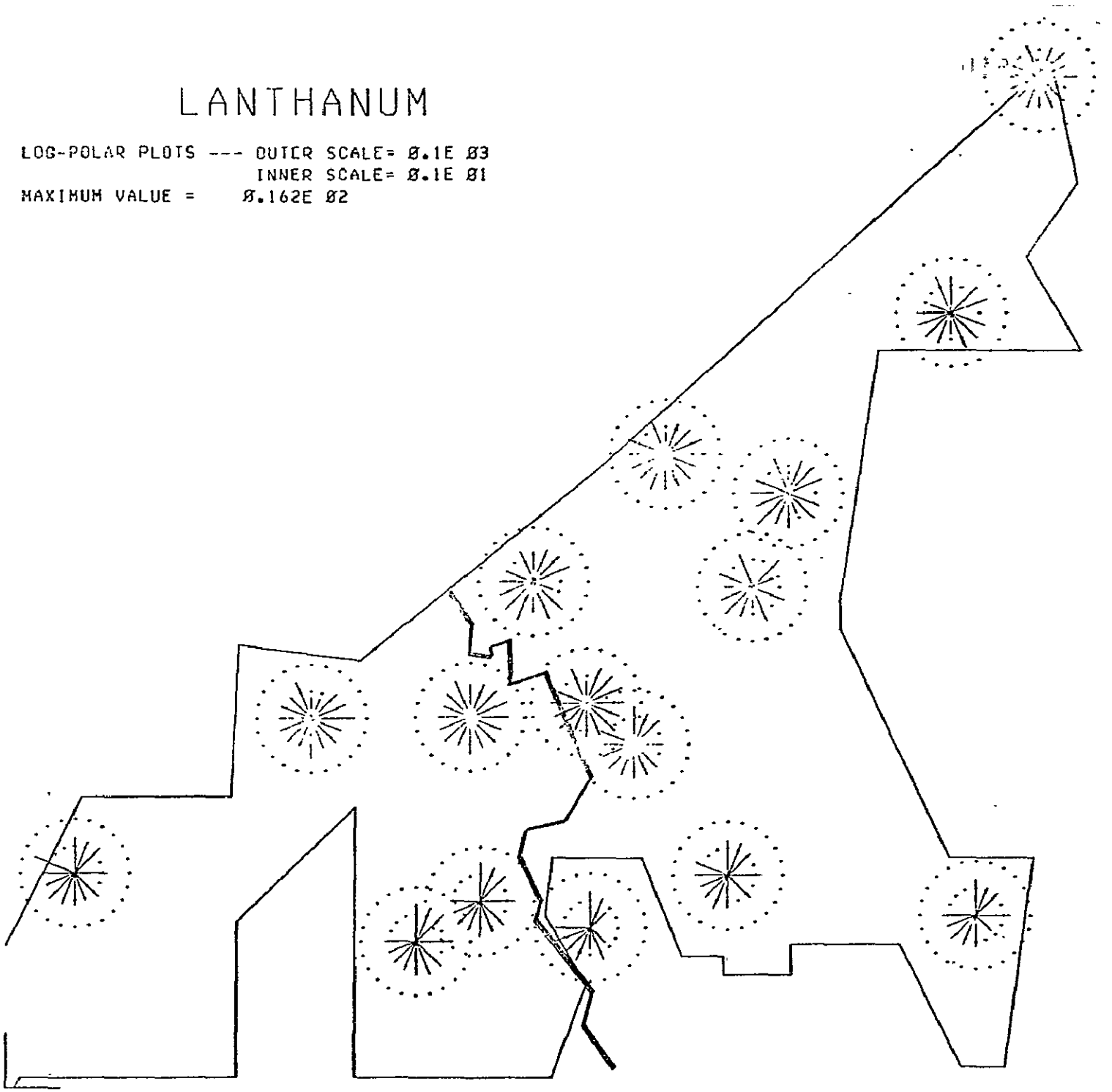
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	4	1	1	1	-1	1	2	6	2	3	1	Ø	4
3	3	2	3	Ø	3	Ø	1	-1	7	7	4	1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	2	2	4	Ø	3	Ø	1	Ø	4	6	2	1	-1	-1	Ø	Ø
6	1	Ø	5	1	Ø	1	-1	-1	1	1	4	2	3	1	Ø	2
7	1	-1	6	4	-1	2	-1	-1	3	2	4	5	3	1	-1	3
8	3	2	3	Ø	3	Ø	1	-1	7	7	4	-1	1	Ø	Ø	Ø
9	3	1	3	Ø	3	Ø	-1	1	4	9	3	2	2	-1	Ø	Ø
10	1	-1	6	3	-1	2	-1	-1	2	1	6	5	4	2	Ø	4
12	3	2	3	Ø	3	Ø	1	-1	6	8	4	1	2	-1	Ø	Ø
13	3	3	1	Ø	Ø	Ø	1	1	3	3	-1	1	1	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	7	6	-1	3	1	Ø	Ø	Ø
15	-1	1	5	4	1	2	-1	-1	2	1	4	4	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	3	2	5	4	3	1	Ø	3
20	Ø	-1	4	2	1	Ø	1	-1	2	2	2	2	3	-1	Ø	4
21	1	-1	5	2	Ø	1	1	-1	3	2	3	3	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

LANTHANUM

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 03
INNER SCALE= 0.1E 01
MAXIMUM VALUE = 0.162E 02



LANTHANUM

NUMBER OF READINGS

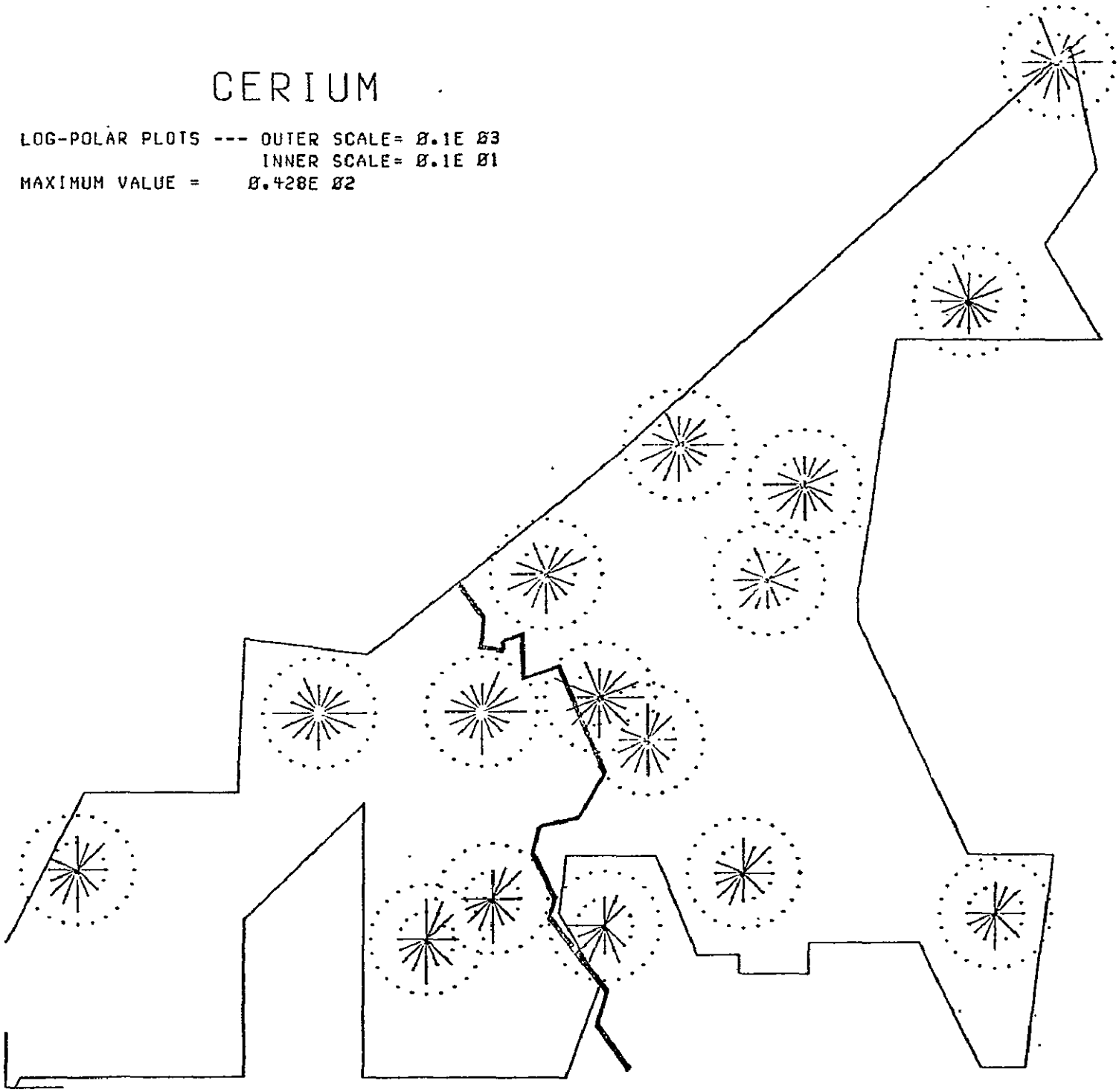
WIND

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	1	5	1	1	1	2	2	1	1	2	4	5	3	0	3
3	2	3	3	0	1	0	1	3	3	6	6	4	4	0	0	0
4	0	0	2	-1	0	1	0	1	-1	2	1	4	4	1	0	3
5	2	3	3	0	2	0	1	0	4	4	4	3	2	1	0	0
6	1	0	3	3	0	1	1	1	-1	1	2	4	5	-1	0	3
7	-1	1	6	1	1	1	1	2	1	3	2	7	6	2	1	2
8	2	3	2	0	2	0	1	3	3	7	6	4	2	0	0	0
9	1	2	2	0	2	0	1	1	3	2	3	5	3	1	0	0
10	-1	1	5	1	1	1	1	1	1	1	1	8	7	3	0	3
12	2	3	3	0	2	0	1	3	3	8	6	3	2	1	0	0
13	3	3	-1	0	0	0	-1	1	-1	6	4	4	4	0	0	0
14	2	1	2	0	3	0	-1	0	3	4	2	2	2	0	0	0
15	1	2	6	2	1	1	1	2	1	3	2	7	7	3	1	1
17	-1	1	5	3	0	1	1	-1	1	3	3	6	5	3	0	3
20	0	1	5	2	1	0	2	2	1	2	1	4	4	2	0	3
21	1	1	7	1	0	-1	1	2	2	2	1	5	4	4	0	2

-1 INDICATES ESTIMATED VALUE

CERIUM

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 03
INNER SCALE= 0.1E 01
MAXIMUM VALUE = 0.428E 02



CERIUM

NUMBER OF READINGS

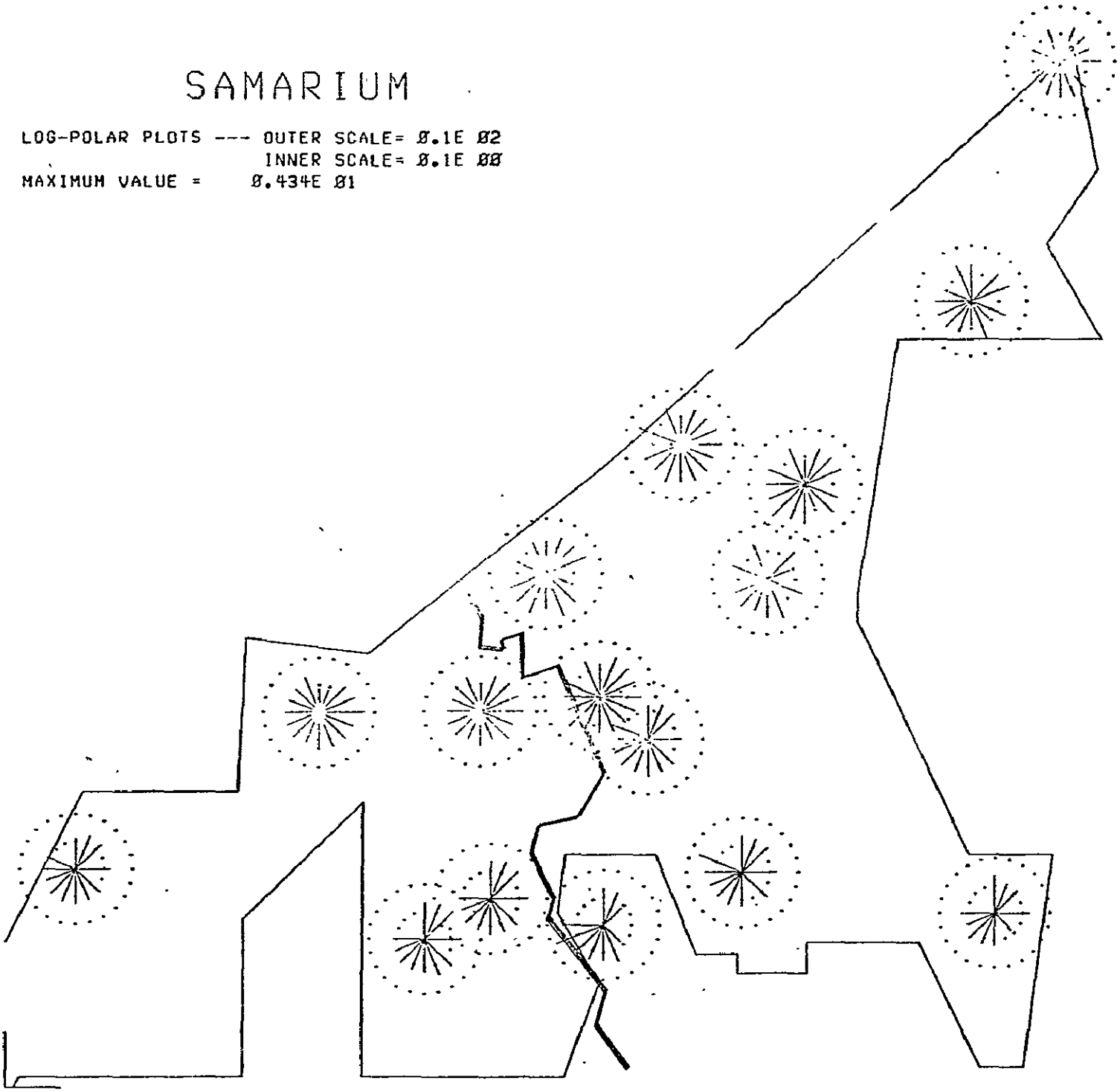
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	-1	-1	2	1	1	-1	1	-1	1	1	3	2	-1	1	0	4
3	-1	2	1	0	-1	0	1	-1	1	5	2	-1	1	0	0	0
4	0	0	-1	1	0	1	0	-1	-1	1	2	-1	2	-1	0	2
5	1	-1	1	0	-1	0	-1	0	-1	1	2	-1	-1	-1	0	0
6	-1	0	4	1	0	-1	-1	-1	1	-1	2	-1	2	1	0	1
7	-1	-1	2	3	1	1	-1	-1	3	1	1	2	1	-1	-1	1
8	1	2	2	0	1	0	1	-1	1	3	2	-1	-1	0	0	0
9	1	-1	1	0	-1	0	-1	1	3	6	2	1	-1	-1	0	0
10	-1	-1	4	1	1	-1	-1	-1	2	1	2	2	2	-1	0	1
12	2	-1	1	0	-1	0	-1	-1	1	5	3	-1	-1	-1	0	0
13	-1	1	-1	0	0	0	-1	1	-1	4	3	-1	2	0	0	0
14	2	-1	2	0	-1	0	1	0	2	-1	-1	-1	-1	0	0	0
15	-1	1	4	2	1	-1	-1	-1	1	1	1	1	2	1	-1	-1
17	-1	-1	5	1	0	-1	1	-1	2	2	1	2	1	-1	0	-1
20	0	-1	1	-1	1	0	-1	-1	1	1	2	1	1	-1	0	2
21	0	-1	2	1	0	-1	-1	-1	1	1	1	1	1	1	0	1

-1 INDICATES ESTIMATED VALUE

SAMARIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.434E Ø1



SAMARIUM

NUMBER OF READINGS

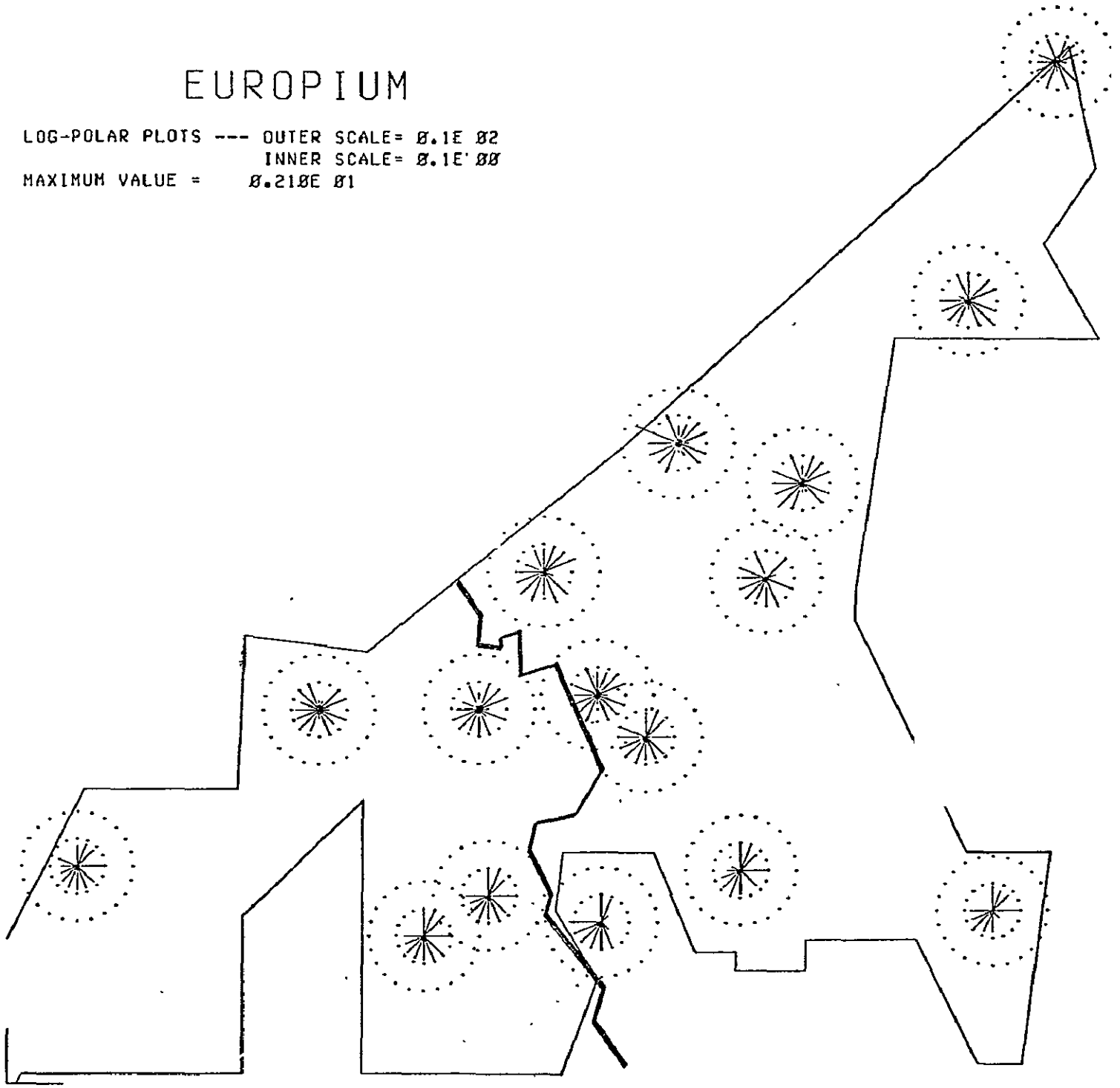
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	1	1	1	2	1	2	5	4	4	3	Ø	4
3	2	3	3	Ø	3	Ø	1	3	5	7	6	4	4	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	1	1	2	4	4	4	1	Ø	3
5	3	3	4	Ø	3	Ø	1	Ø	3	4	4	4	2	1	Ø	Ø
6	1	Ø	3	3	Ø	1	-1	1	-1	1	3	4	4	-1	Ø	3
7	-1	1	7	3	1	1	1	2	1	3	3	7	6	2	1	3
8	3	3	3	Ø	3	Ø	1	3	4	7	6	4	2	Ø	Ø	Ø
9	3	2	3	Ø	3	Ø	1	2	4	5	4	5	4	1	Ø	Ø
10	1	1	7	3	1	1	1	1	1	1	4	8	8	3	Ø	4
12	2	3	3	Ø	3	Ø	1	3	5	7	6	3	3	1	Ø	Ø
13	3	4	-1	Ø	Ø	Ø	-1	1	2	6	4	4	4	Ø	Ø	Ø
14	2	1	3	Ø	3	Ø	-1	Ø	4	5	2	3	3	Ø	Ø	Ø
15	1	2	7	3	1	1	1	2	2	3	4	7	6	3	1	2
17	-1	1	6	3	Ø	1	1	-1	1	3	3	6	5	3	Ø	3
20	Ø	1	6	2	1	Ø	2	2	1	2	1	4	5	2	Ø	4
21	1	1	7	1	Ø	-1	2	2	2	2	2	6	4	4	Ø	2

_ -1 INDICATES ESTIMATED VALUE

EUROPIUM

LOG-POLAR PLOTS --- OUTER SCALE= 0.1E 02
INNER SCALE= 0.1E' 00
MAXIMUM VALUE = 0.210E 01



EUROPIUM

NUMBER OF READINGS

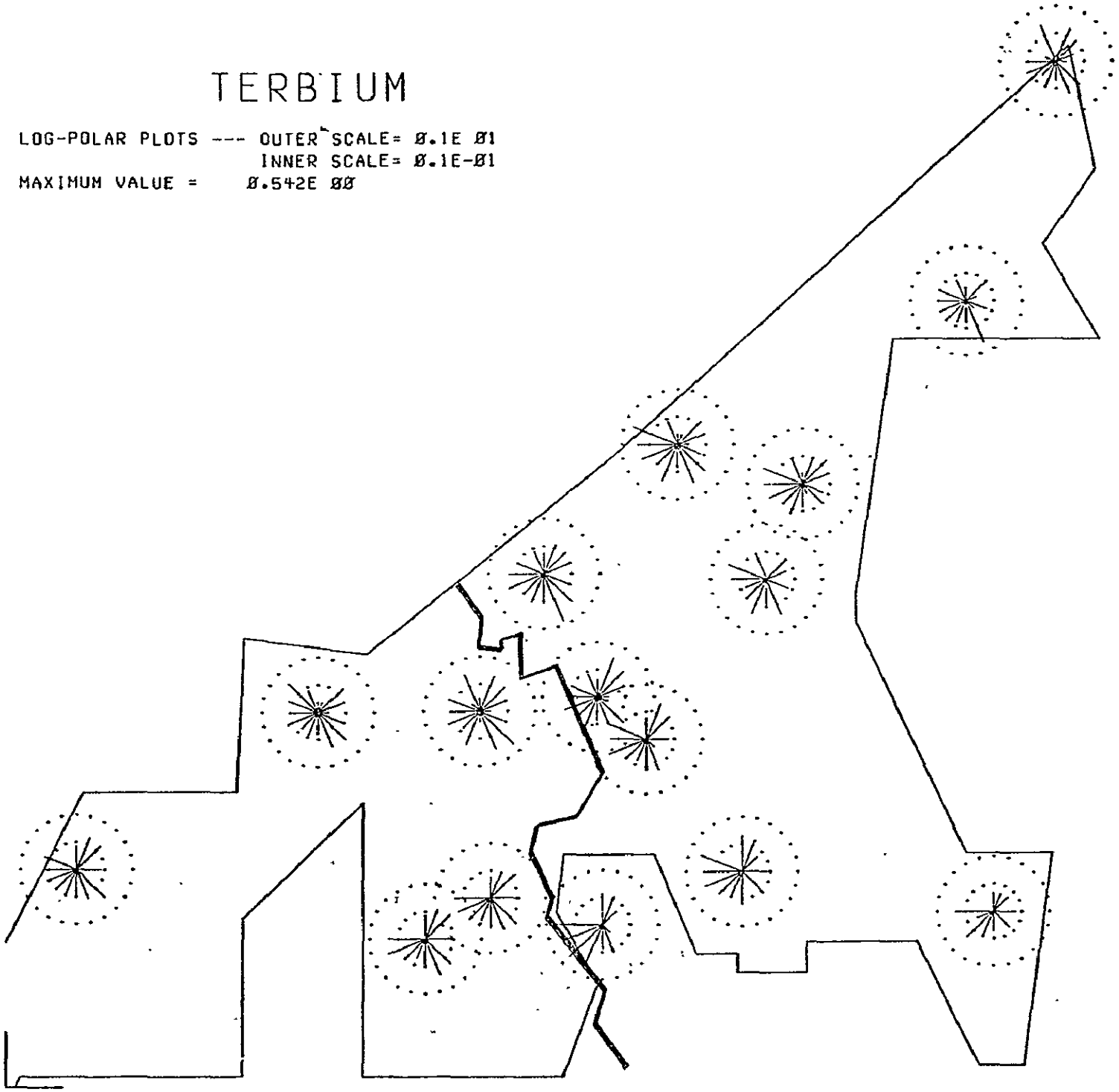
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	3	-1	1	2	1	-1	2	5	3	6	3	0	4
3	3	3	2	0	3	0	1	3	4	7	6	4	4	0	0	0
4	0	0	2	-1	0	1	0	1	1	2	4	4	4	1	0	3
5	2	3	4	0	3	0	1	0	4	5	3	2	1	-1	0	0
6	1	0	3	3	0	1	1	1	-1	1	4	3	4	-1	0	3
7	-1	1	7	3	-1	1	1	2	-1	3	3	7	5	2	1	3
8	3	3	3	0	3	0	1	3	5	7	6	3	2	0	0	0
9	2	1	3	0	3	0	1	2	2	5	4	5	3	1	0	0
10	1	1	7	3	-1	1	1	1	-1	1	5	8	7	3	0	4
12	2	3	3	0	3	0	1	2	4	7	6	3	3	1	0	0
13	3	3	-1	0	0	0	-1	1	2	5	4	1	2	0	0	0
14	2	1	3	0	3	0	-1	0	3	5	2	3	3	0	0	0
15	1	2	7	3	-1	1	-1	2	1	3	4	7	5	3	-1	2
17	1	1	6	3	0	1	1	-1	-1	3	4	6	4	3	0	3
20	0	1	6	2	-1	0	2	2	-1	2	1	4	4	2	0	4
21	1	1	7	1	0	-1	2	2	2	2	2	6	5	4	0	2

-1 INDICATES ESTIMATED VALUE

TERBIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.542E ØØ



TERBIUM

NUMBER OF READINGS

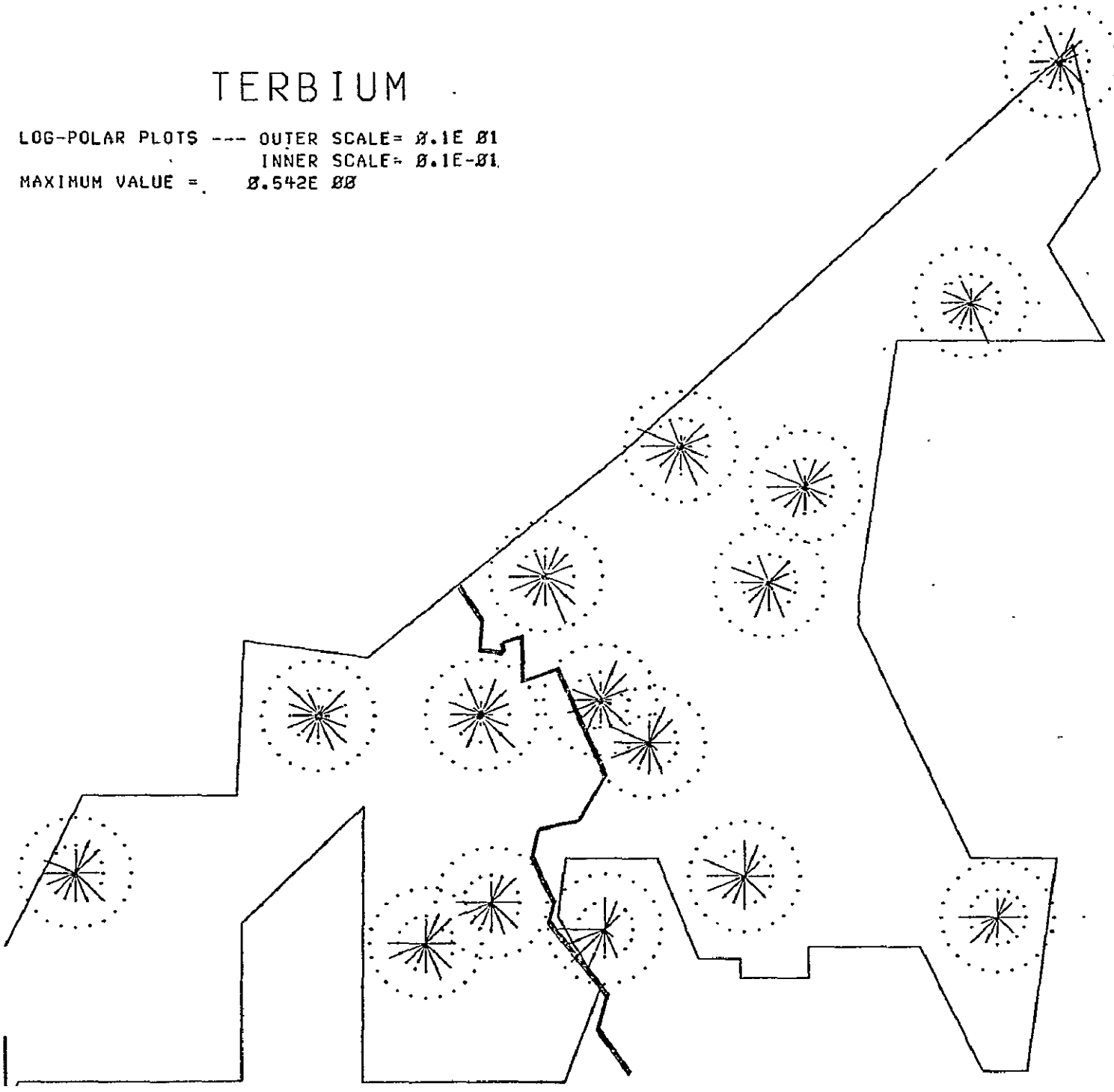
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	5	4	-1	-1	2	1	1	1	6	4	6	1	Ø	4
3	2	2	3	Ø	2	Ø	2	2	8	8	6	4	3	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	3	6	2	Ø	3
5	3	3	4	Ø	3	Ø	2	Ø	5	7	3	2	2	1	Ø	Ø
6	1	Ø	3	-1	Ø	1	-1	1	1	1	4	4	4	1	Ø	2
7	1	-1	8	4	-1	2	1	2	3	2	4	6	5	2	1	2
8	3	2	4	Ø	3	Ø	2	3	8	6	6	1	1	Ø	Ø	Ø
9	2	2	4	Ø	3	Ø	-1	2	7	8	4	5	4	1	Ø	Ø
10	-1	-1	8	3	-1	2	1	1	2	1	6	8	8	4	Ø	4
12	2	3	3	Ø	3	Ø	2	3	7	10	5	2	1	1	Ø	Ø
13	2	4	1	Ø	Ø	Ø	-1	1	3	5	1	2	3	Ø	Ø	Ø
14	3	1	4	Ø	2	Ø	1	Ø	5	4	1	1	2	Ø	Ø	Ø
15	1	1	7	4	-1	2	1	2	-1	1	3	5	8	2	-1	2
17	-1	1	7	4	Ø	1	1	-1	3	3	5	6	5	4	Ø	3
20	Ø	1	4	2	-1	Ø	2	1	2	1	2	3	1	-1	Ø	4
21	1	1	6	2	Ø	1	2	2	3	2	3	6	5	4	Ø	3

-1 INDICATES ESTIMATED VALUE

TERBIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø1
INNER SCALE= Ø.1E-Ø1
MAXIMUM VALUE = Ø.542E ØØ



TERBIUM

NUMBER OF READINGS

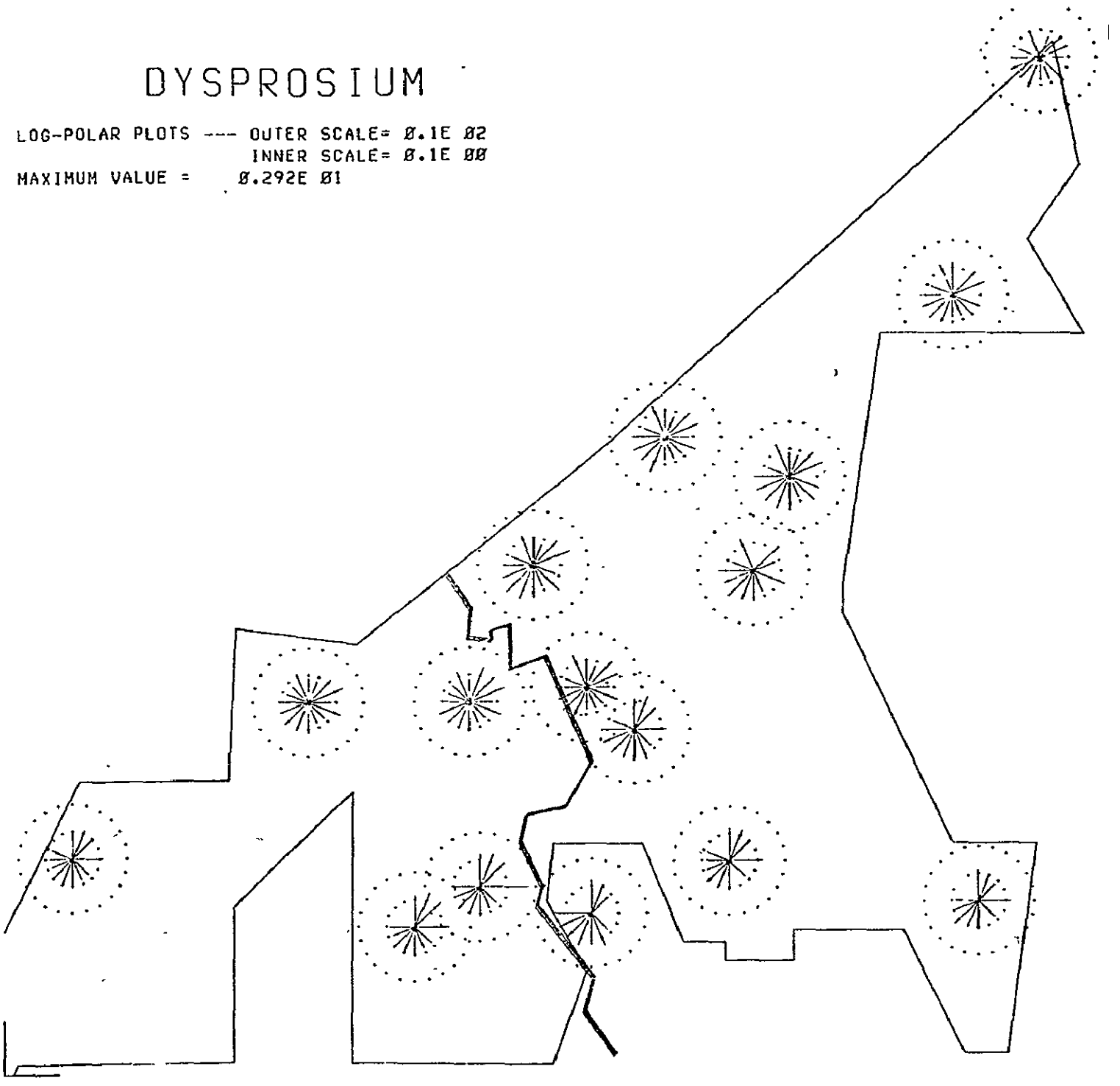
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	5	4	-1	-1	2	1	1	1	6	4	6	1	Ø	4
3	2	2	3	Ø	2	Ø	2	2	8	8	6	4	3	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	3	6	2	Ø	3
5	3	3	4	Ø	3	Ø	2	Ø	5	7	3	2	2	1	Ø	Ø
6	1	Ø	3	-1	Ø	1	-1	1	1	1	4	4	4	1	Ø	2
7	1	-1	8	4	-1	2	1	2	3	2	4	6	5	2	1	2
8	3	2	4	Ø	3	Ø	2	3	8	6	6	1	1	Ø	Ø	Ø
9	2	2	4	Ø	3	Ø	-1	2	7	8	4	5	4	1	Ø	Ø
10	-1	-1	8	3	-1	2	1	1	2	1	6	8	8	4	Ø	4
12	2	3	3	Ø	3	Ø	2	3	7	10	5	2	1	1	Ø	Ø
13	2	4	1	Ø	Ø	Ø	-1	1	3	5	1	2	3	Ø	Ø	Ø
14	3	1	4	Ø	2	Ø	1	Ø	5	4	1	1	2	Ø	Ø	Ø
15	1	1	7	4	-1	2	1	2	-1	1	3	5	8	2	-1	2
17	-1	1	7	4	Ø	1	1	-1	3	3	5	6	5	4	Ø	3
20	Ø	1	4	2	-1	Ø	2	1	2	1	2	3	1	-1	Ø	4
21	1	1	6	2	Ø	1	2	2	3	2	3	6	5	4	Ø	3

-1 INDICATES ESTIMATED VALUE

DYSPROSIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.292E Ø1



DYSPROSIUM

NUMBER OF READINGS

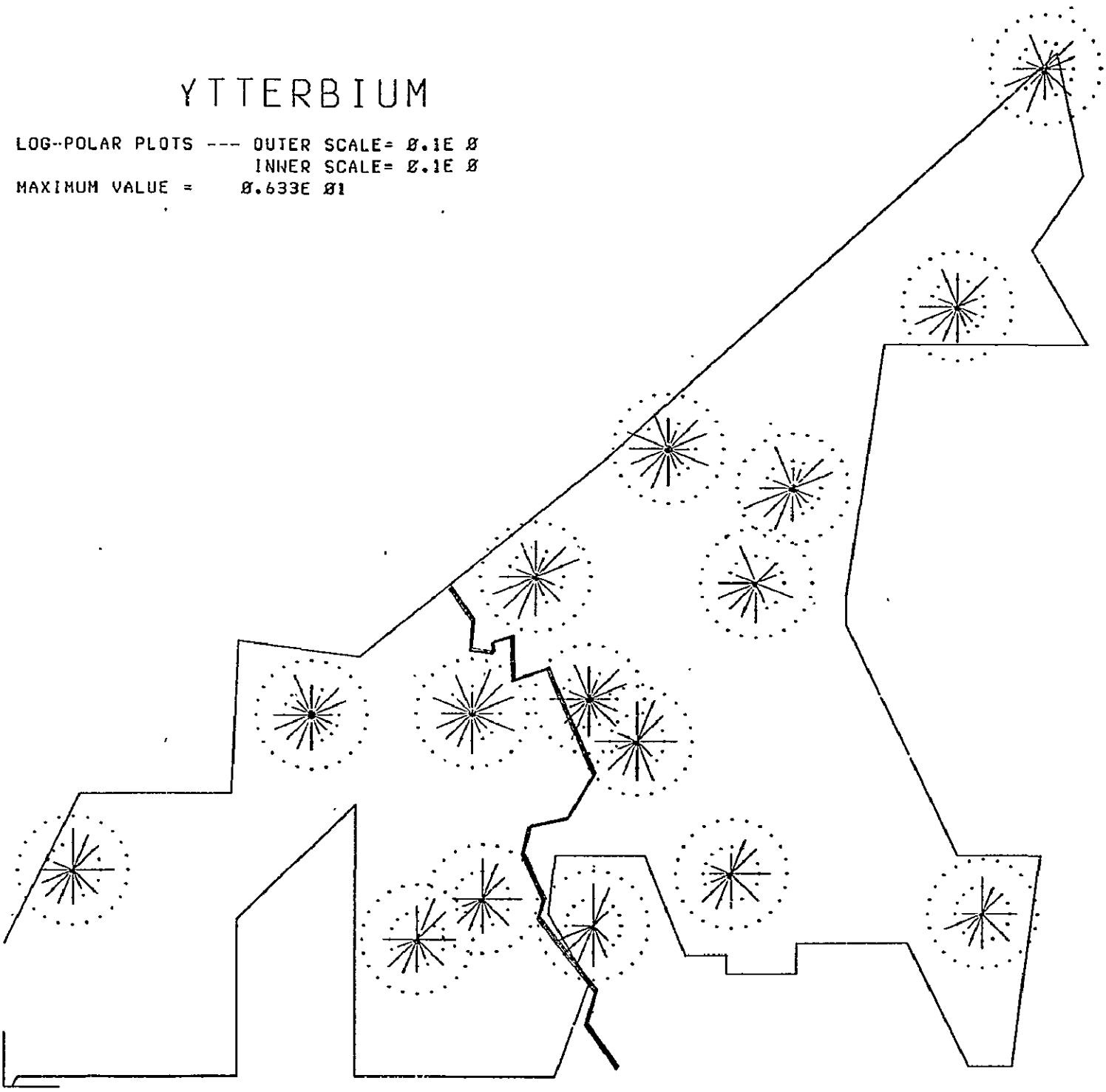
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	3	-1	1	-1	-1	-1	1	5	2	2	-1	Ø	3
3	3	2	2	Ø	3	Ø	-1	-1	3	6	4	1	2	Ø	Ø	Ø
4	Ø	Ø	2	-1	Ø	1	Ø	-1	1	1	4	3	3	-1	Ø	3
5	1	2	3	Ø	3	Ø	-1	Ø	2	5	2	-1	-1	-1	Ø	Ø
6	1	Ø	4	3	Ø	1	1	-1	-1	1	4	2	3	-1	Ø	3
7	1	-1	5	3	-1	1	-1	-1	1	2	3	5	3	-1	-1	3
8	3	2	2	Ø	3	Ø	-1	-1	3	5	4	-1	1	Ø	Ø	Ø
9	3	1	2	Ø	3	Ø	-1	1	2	6	3	2	2	-1	Ø	Ø
10	1	-1	5	3	-1	1	-1	-1	-1	1	5	5	4	-1	Ø	4
12	3	2	2	Ø	3	Ø	-1	-1	3	6	4	-1	2	-1	Ø	Ø
13	3	3	-1	Ø	Ø	Ø	-1	1	2	5	4	1	2	Ø	Ø	Ø
14	2	1	3	Ø	3	Ø	-1	Ø	3	4	1	3	1	Ø	Ø	Ø
15	1	1	5	3	-1	1	-1	-1	1	1	4	3	4	-1	-1	3
17	1	-1	4	3	Ø	1	1	-1	1	2	4	4	3	-1	Ø	3
20	Ø	-1	4	2	-1	Ø	1	-1	-1	2	1	2	3	-1	Ø	4
21	1	-1	4	1	Ø	-1	1	-1	1	2	2	2	3	-1	Ø	3

. -1 INDICATES ESTIMATED VALUE

YTTERBIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø
INNER SCALE= Ø.1E Ø
MAXIMUM VALUE = Ø.633E Ø1



YTTERBIUM

NUMBER OF READINGS

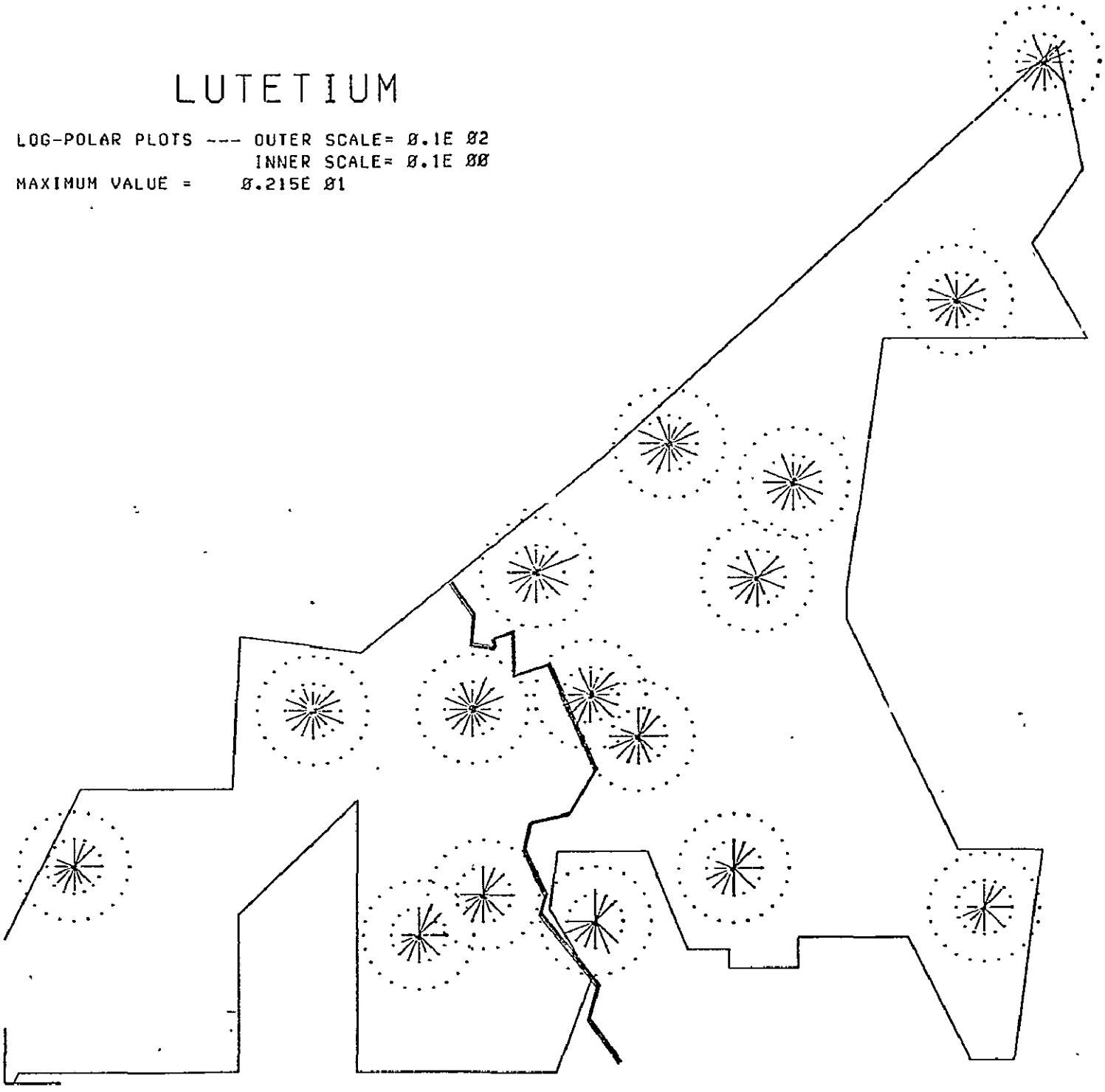
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	4	4	-1	1	1	-1	1	2	4	-1	1	-1	Ø	3
3	3	2	2	Ø	3	Ø	1	-1	6	7	4	-1	2	Ø	Ø	Ø
4	Ø	Ø	1	-1	Ø	2	Ø	-1	1	1	4	3	3	-1	Ø	3
5	-1	2	2	Ø	2	Ø	1	Ø	4	4	2	1	-1	-1	Ø	Ø
6	1	Ø	2	-1	Ø	-1	-1	-1	1	1	3	1	2	-1	Ø	2
7	1	-1	5	3	-1	1	-1	-1	2	2	3	5	3	-1	-1	3
8	1	2	3	Ø	3	Ø	1	-1	6	5	4	-1	1	Ø	Ø	Ø
9	2	1	2	Ø	3	Ø	-1	1	5	5	1	-1	2	-1	Ø	Ø
10	1	-1	4	3	-1	2	-1	-1	2	1	5	5	4	1	Ø	4
12	1	2	2	Ø	3	Ø	1	-1	6	5	3	1	2	-1	Ø	Ø
13	3	2	-1	Ø	Ø	Ø	-1	1	3	3	1	1	1	Ø	Ø	Ø
14	3	1	2	Ø	3	Ø	1	Ø	6	4	-1	2	-1	Ø	Ø	Ø
15	1	1	5	3	-1	2	-1	-1	1	2	3	4	4	1	-1	3
17	1	-1	3	3	Ø	-1	-1	-1	2	2	5	3	2	-1	Ø	3
20	Ø	-1	3	2	-1	Ø	1	-1	2	1	-1	2	2	-1	Ø	2
21	1	-1	5	2	Ø	-1	1	-1	2	2	2	1	3	-1	Ø	3

-1 INDICATES ESTIMATED VALUE

LUTETIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.215E Ø1



LUTETIUM

NUMBER OF READINGS

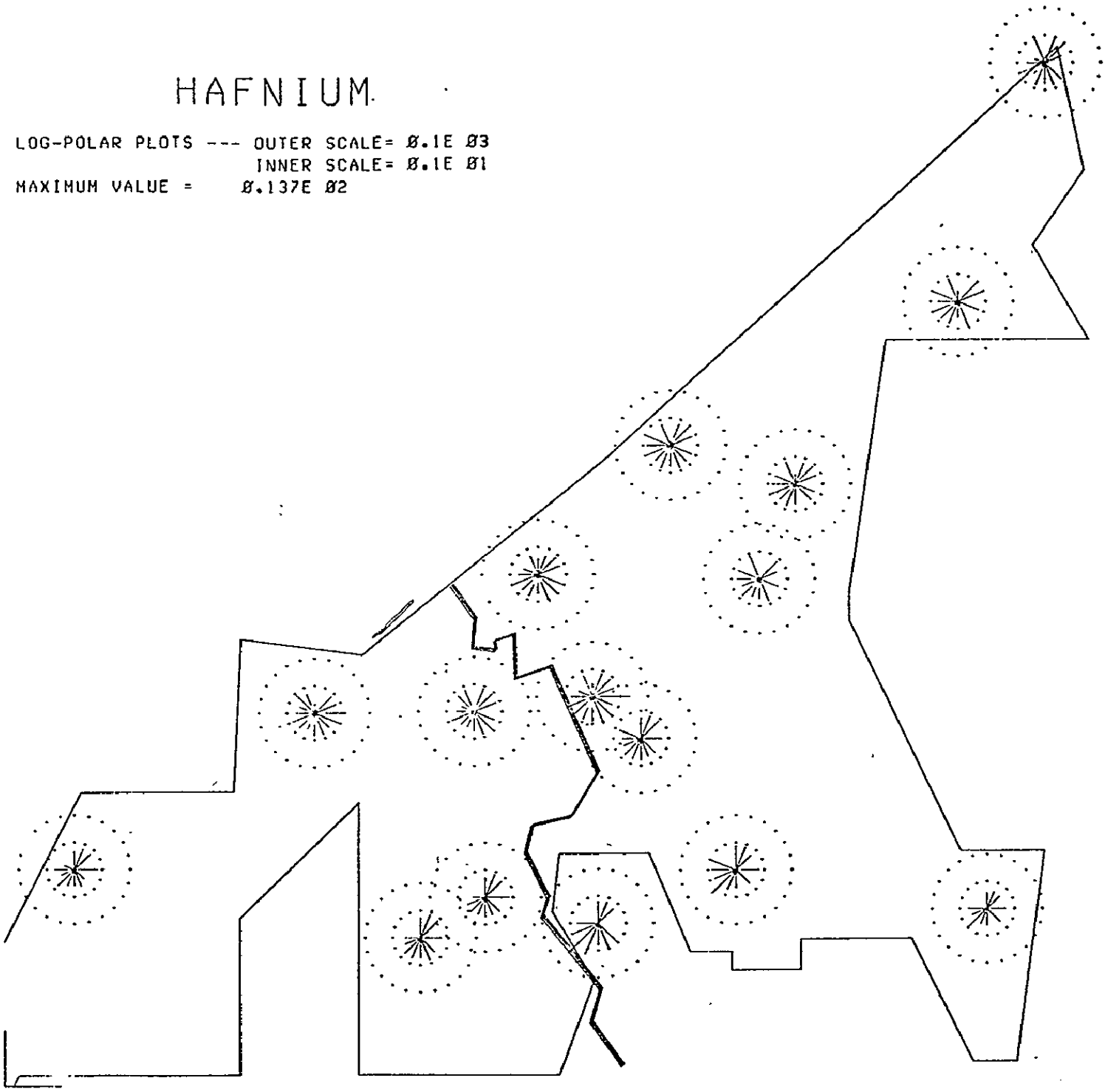
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	-1	3	4	-1	1	1	-1	1	1	6	1	3	-1	Ø	4
3	3	2	2	Ø	3	Ø	1	-1	6	8	4	-1	2	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	-1	1	1	5	3	3	1	Ø	3
5	1	2	4	Ø	2	Ø	1	Ø	4	6	2	1	-1	-1	Ø	Ø
6	1	Ø	3	2	Ø	1	-1	-1	1	1	4	1	3	1	Ø	2
7	1	-1	6	3	-1	2	-1	-1	3	2	4	5	3	1	-1	2
8	3	2	3	Ø	3	Ø	1	-1	6	7	4	-1	1	Ø	Ø	Ø
9	3	1	3	Ø	3	Ø	-1	1	5	7	3	2	2	-1	Ø	Ø
10	1	-1	6	3	-1	2	-1	-1	2	1	6	5	4	1	Ø	4
12	2	2	3	Ø	3	Ø	1	-1	6	7	4	1	2	-1	Ø	Ø
13	2	3	1	Ø	Ø	Ø	1	1	3	2	1	1	1	Ø	Ø	Ø
14	2	1	4	Ø	3	Ø	1	Ø	6	6	-1	2	-1	Ø	Ø	Ø
15	1	1	5	4	-1	2	-1	-1	1	2	4	3	4	1	-1	3
17	1	-1	5	4	Ø	1	1	-1	3	2	5	4	3	1	Ø	3
20	Ø	-1	4	2	-1	Ø	1	-1	2	2	2	1	1	-1	Ø	2
21	1	-1	5	2	Ø	1	1	-1	3	2	2	2	3	1	Ø	3

-1 INDICATES ESTIMATED VALUE

HAFNIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.137E Ø2



HAFNIUM

NUMBER OF READINGS

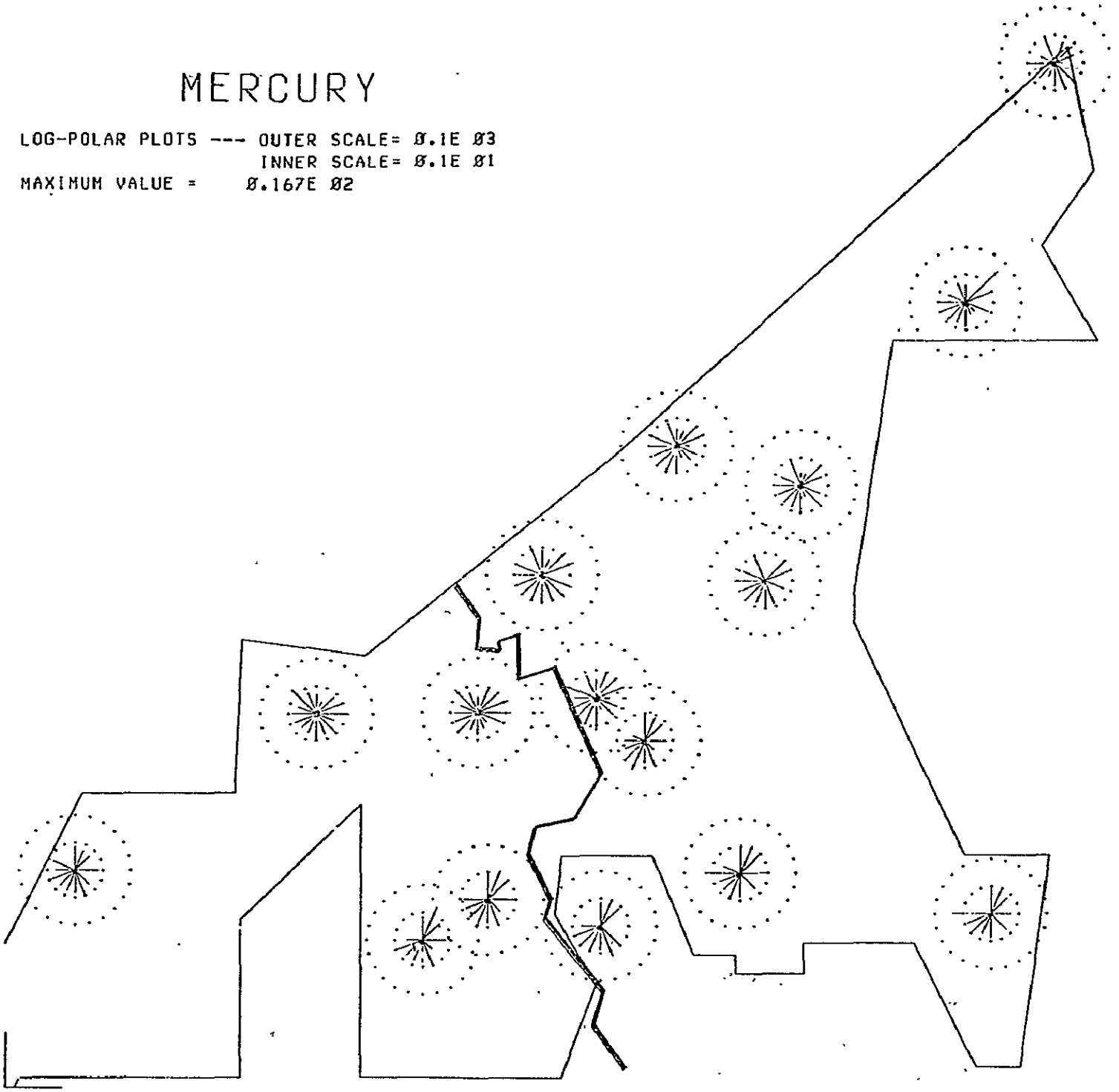
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	2	2	6	3	7	2	0	4
3	3	3	4	0	3	0	2	3	9	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	7	4	4	2	1	0	0
6	1	0	5	2	0	1	-1	1	1	1	4	4	5	1	0	3
7	1	1	7	4	1	2	1	2	4	3	4	7	6	3	1	3
8	3	3	4	0	3	0	2	3	9	8	5	3	2	0	0	0
9	3	2	4	0	3	0	1	2	8	8	4	5	4	1	0	0
10	1	1	8	3	-1	2	1	1	2	1	6	8	8	4	0	4
12	3	3	4	0	3	0	2	2	7	11	5	3	3	1	0	0
13	3	4	1	0	0	0	1	1	3	3	1	1	1	0	0	0
14	3	1	4	0	3	0	1	0	7	6	2	3	3	0	0	0
15	1	1	7	4	-1	2	1	2	1	3	4	6	8	4	1	2
17	1	1	7	4	0	1	1	-1	3	3	5	6	5	4	0	3
20	0	1	6	2	-1	0	2	2	3	1	2	4	4	2	0	4
21	1	1	7	2	0	1	2	2	3	2	3	6	5	4	0	3

-1 INDICATES ESTIMATED VALUE

MERCURY

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.167E Ø2



MERCURY

NUMBER OF READINGS

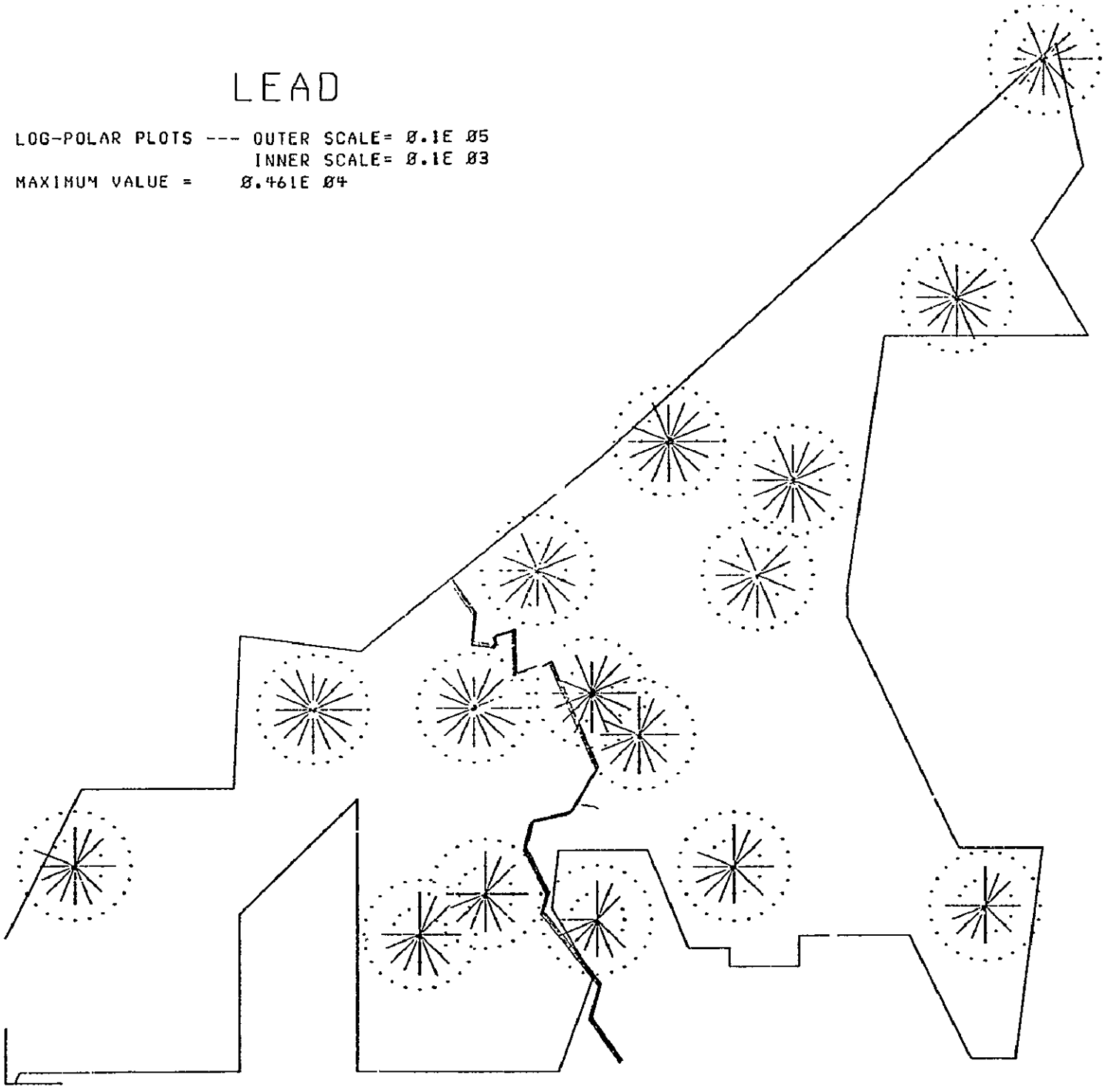
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	5	4	-1	1	1	-1	2	1	6	4	7	3	0	3
3	3	3	3	0	3	0	2	3	8	11	6	4	3	0	0	0
4	0	0	2	1	0	2	0	1	1	1	5	4	4	2	0	3
5	2	3	5	0	3	0	2	0	4	7	4	2	2	1	0	0
6	1	0	4	2	0	1	-1	-1	1	1	3	3	4	1	0	2
7	1	-1	6	4	1	2	1	2	4	2	4	7	6	2	1	3
8	3	2	3	0	3	0	2	3	6	8	6	2	2	0	0	0
9	3	1	3	0	3	0	-1	2	5	9	4	3	3	-1	0	0
10	1	1	8	3	-1	2	1	-1	3	1	6	8	6	2	0	4
12	3	3	4	0	2	0	2	3	7	9	5	3	3	1	0	0
13	2	4	1	0	0	0	1	1	3	4	2	1	2	0	0	0
14	3	1	4	0	3	0	1	0	6	7	1	3	3	0	0	0
15	1	1	6	4	1	2	-1	1	2	3	4	7	7	4	1	2
17	1	-1	7	4	0	1	1	-1	3	2	5	5	5	4	0	3
20	0	1	5	2	-1	0	2	1	3	2	2	4	4	2	0	4
21	1	1	7	2	0	1	2	1	3	2	3	6	5	4	0	3

-1 INDICATES ESTIMATED VALUE

LEAD

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø5
INNER SCALE= Ø.1E Ø3
MAXIMUM VALUE = Ø.461E Ø4



LEAD

NUMBER OF READINGS

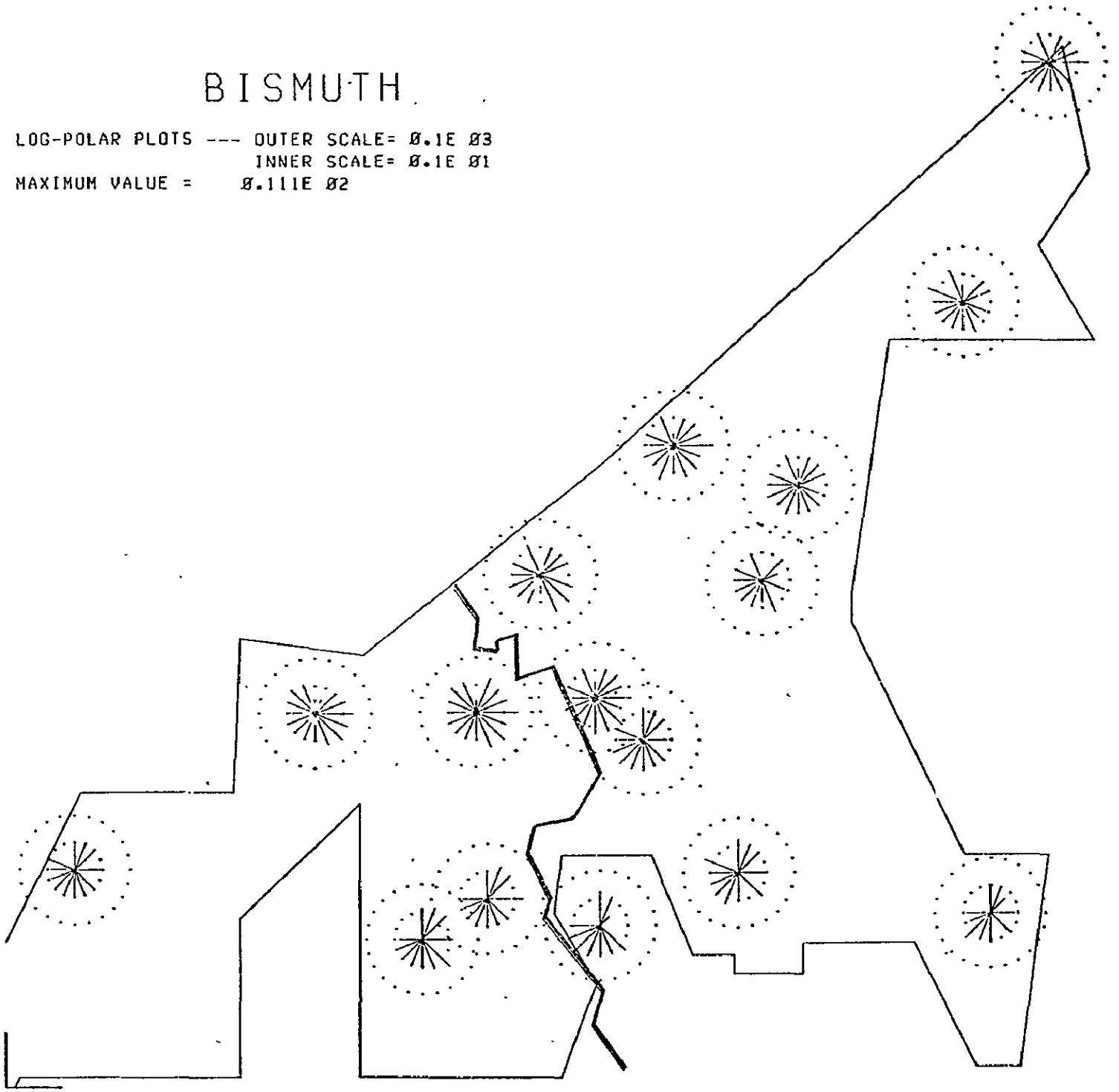
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	3	2	2	6	4	7	3	Ø	5
3	4	3	4	Ø	3	Ø	2	3	1Ø	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	4	2	1	Ø	Ø
6	1	Ø	5	3	Ø	2	1	2	1	1	5	4	5	1	Ø	3
7	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	4
8	3	3	4	Ø	3	Ø	2	3	1Ø	1Ø	6	3	2	Ø	Ø	Ø
9	4	2	4	Ø	3	Ø	1	2	8	9	4	5	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	2	3	1	6	8	7	4	Ø	5
12	4	3	4	Ø	3	Ø	2	3	9	11	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	4	7	4	4	4	Ø	Ø	Ø
14	4	1	4	Ø	3	Ø	1	Ø	8	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	Ø	1	1	1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	3	3	2	2	4	5	2	Ø	5
21	Ø	1	7	2	Ø	1	2	2	2	2	4	6	6	4	Ø	3

— -1 INDICATES ESTIMATED VALUE

BISMUTH

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.111E Ø2



BISMUTH

NUMBER OF READINGS

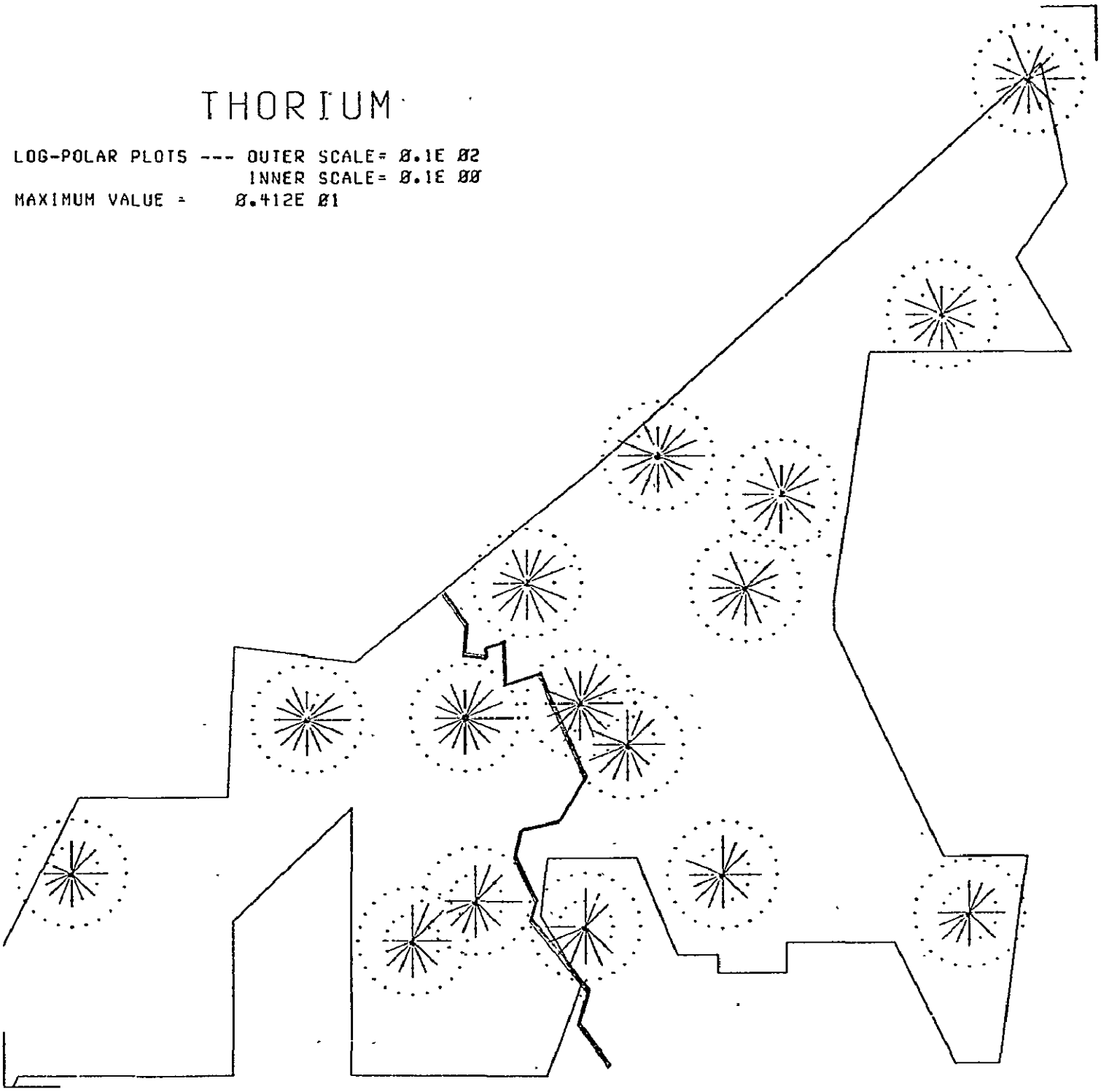
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	5	1	1	2	3	2	2	6	4	7	3	0	5
3	4	3	4	0	3	0	2	3	10	11	6	5	4	0	0	0
4	0	0	2	1	0	2	0	1	1	2	5	4	6	2	0	3
5	3	3	5	0	3	0	2	0	6	8	4	4	2	1	0	0
6	1	0	5	3	0	2	1	2	1	1	5	4	5	1	0	3
7	1	1	8	4	1	2	1	3	4	3	4	7	7	3	1	4
8	3	3	4	0	3	0	2	3	10	10	6	3	2	0	0	0
9	4	2	4	0	3	0	1	2	8	9	4	5	4	1	0	0
10	1	1	8	3	1	2	1	2	3	1	6	8	7	4	0	5
12	4	3	4	0	3	0	2	3	9	11	6	3	3	1	0	0
13	3	4	1	0	0	0	1	1	4	7	4	4	4	0	0	0
14	4	1	4	0	3	0	1	0	7	7	2	3	3	0	0	0
15	1	2	7	4	1	2	1	3	2	3	4	7	8	4	1	4
17	1	1	7	4	0	1	1	1	4	3	5	6	5	4	0	3
20	0	1	6	2	1	0	2	3	3	2	2	4	5	2	0	6
21	0	1	7	2	0	1	2	2	2	2	4	6	6	4	0	3

-1 INDICATES ESTIMATED VALUE

THORIUM

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.412E Ø1



THORIUM

NUMBER OF READINGS

WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	6	4	1	1	2	2	1	2	6	4	7	2	Ø	4
3	3	3	4	Ø	3	Ø	2	3	9	11	6	5	4	Ø	Ø	Ø
4	Ø	Ø	2	1	Ø	2	Ø	1	1	2	5	4	6	2	Ø	3
5	3	3	5	Ø	3	Ø	2	Ø	6	8	4	3	2	1	Ø	Ø
6	1	Ø	5	2	Ø	1	-1	1	1	1	4	4	5	1	Ø	3
7	1	1	8	4	1	2	1	2	4	3	4	7	7	2	1	3
8	3	3	4	Ø	3	Ø	2	3	9	1Ø	6	4	2	Ø	Ø	Ø
9	3	2	4	Ø	3	Ø	1	2	8	9	4	4	4	1	Ø	Ø
1Ø	1	1	8	3	1	2	1	1	3	1	6	8	8	4	Ø	4
12	3	3	4	Ø	3	Ø	1	3	8	1Ø	6	3	3	1	Ø	Ø
13	3	4	1	Ø	Ø	Ø	1	1	3	6	2	3	4	Ø	Ø	Ø
14	3	1	4	Ø	3	Ø	1	Ø	6	7	2	3	3	Ø	Ø	Ø
15	1	2	7	4	1	2	1	2	2	3	4	7	7	4	1	3
17	1	1	6	4	Ø	1	1	-1	4	3	5	6	5	4	Ø	3
2Ø	Ø	1	6	2	1	Ø	2	2	3	2	2	4	5	2	Ø	4
21	1	1	7	2	Ø	1	2	2	3	2	3	6	6	4	Ø	3

. -1 INDICATES ESTIMATED VALUE

CARBON (BEFORE)

NUMBER OF READINGS

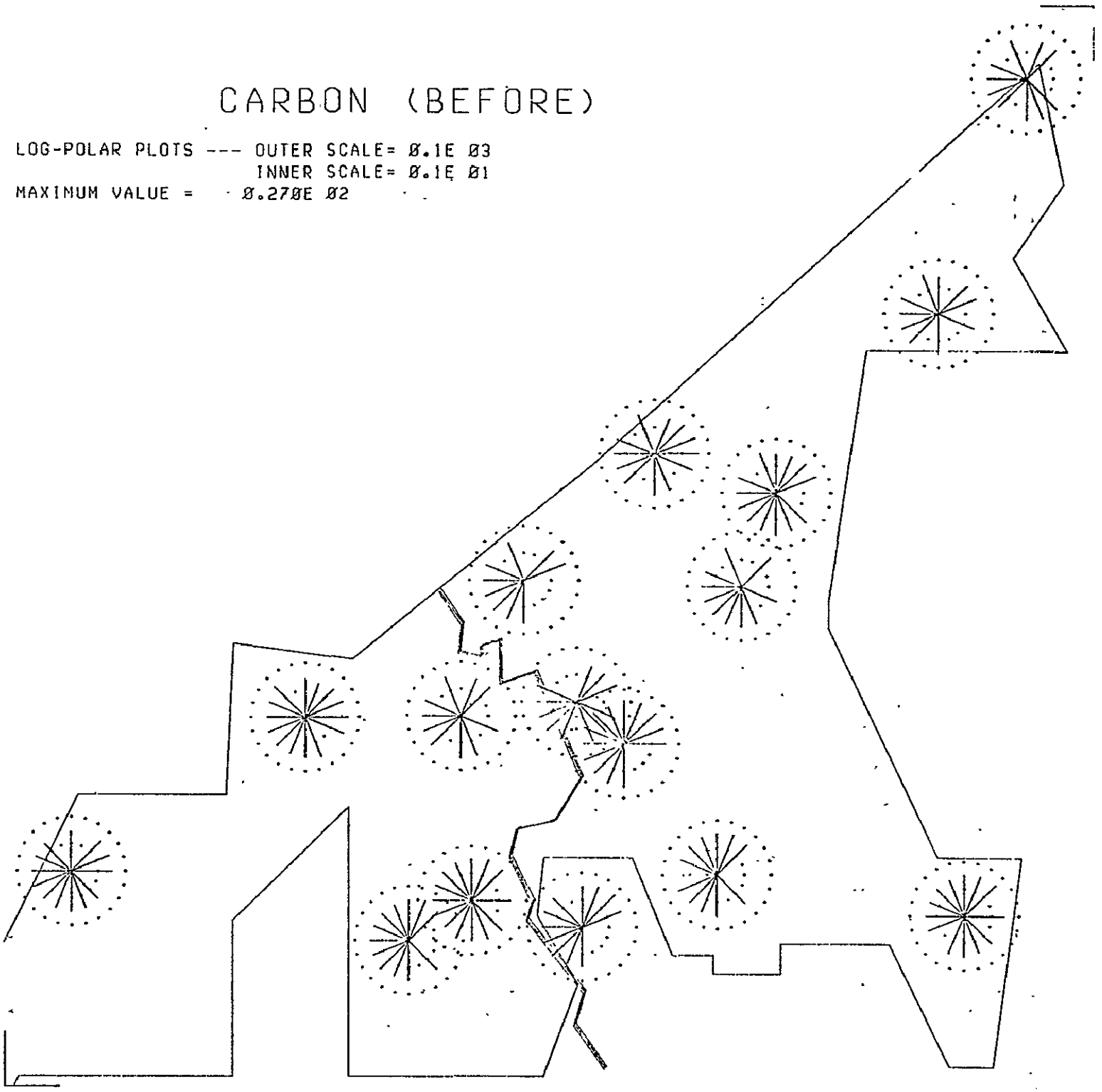
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	2	3	Ø	1	1	1	Ø	1	4	3	4	1	Ø	Ø
3	4	2	2	Ø	1	Ø	1	1	5	6	1	4	3	4	5	1
4	Ø	Ø	1	Ø	Ø	1	Ø	1	1	2	5	2	4	2	Ø	3
5	1	1	3	Ø	Ø	Ø	1	Ø	3	6	1	2	3	2	2	1
6	1	Ø	3	3	Ø	2	Ø	Ø	1	Ø	3	3	2	1	Ø	2
7	1	1	7	3	1	2	Ø	1	4	3	4	4	5	2	1	Ø
8	4	1	1	Ø	Ø	Ø	1	Ø	5	6	3	3	3	3	5	1
9	2	1	3	1	1	Ø	Ø	Ø	3	7	1	4	3	1	2	2
10	Ø	1	3	3	1	2	Ø	2	2	Ø	4	6	6	3	Ø	2
12	3	Ø	3	1	1	Ø	1	1	4	4	1	3	2	2	4	Ø
13	4	1	1	1	Ø	Ø	Ø	Ø	2	3	1	4	2	3	1	Ø
14	2	1	1	Ø	1	Ø	1	1	2	2	Ø	3	2	1	3	2
15	Ø	1	3	Ø	Ø	2	Ø	1	1	Ø	2	4	2	3	Ø	2
17	1	1	5	3	Ø	Ø	1	1	1	3	3	5	3	4	Ø	2
20	Ø	1	3	Ø	Ø	Ø	1	1	1	Ø	2	2	3	2	Ø	2
21	Ø	Ø	3	1	Ø	Ø	Ø	Ø	3	2	1	3	4	2	Ø	2

-1 INDICATES ESTIMATED VALUE

CARBON (BEFORE)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.27ØE Ø2



CARBON (AFTER)

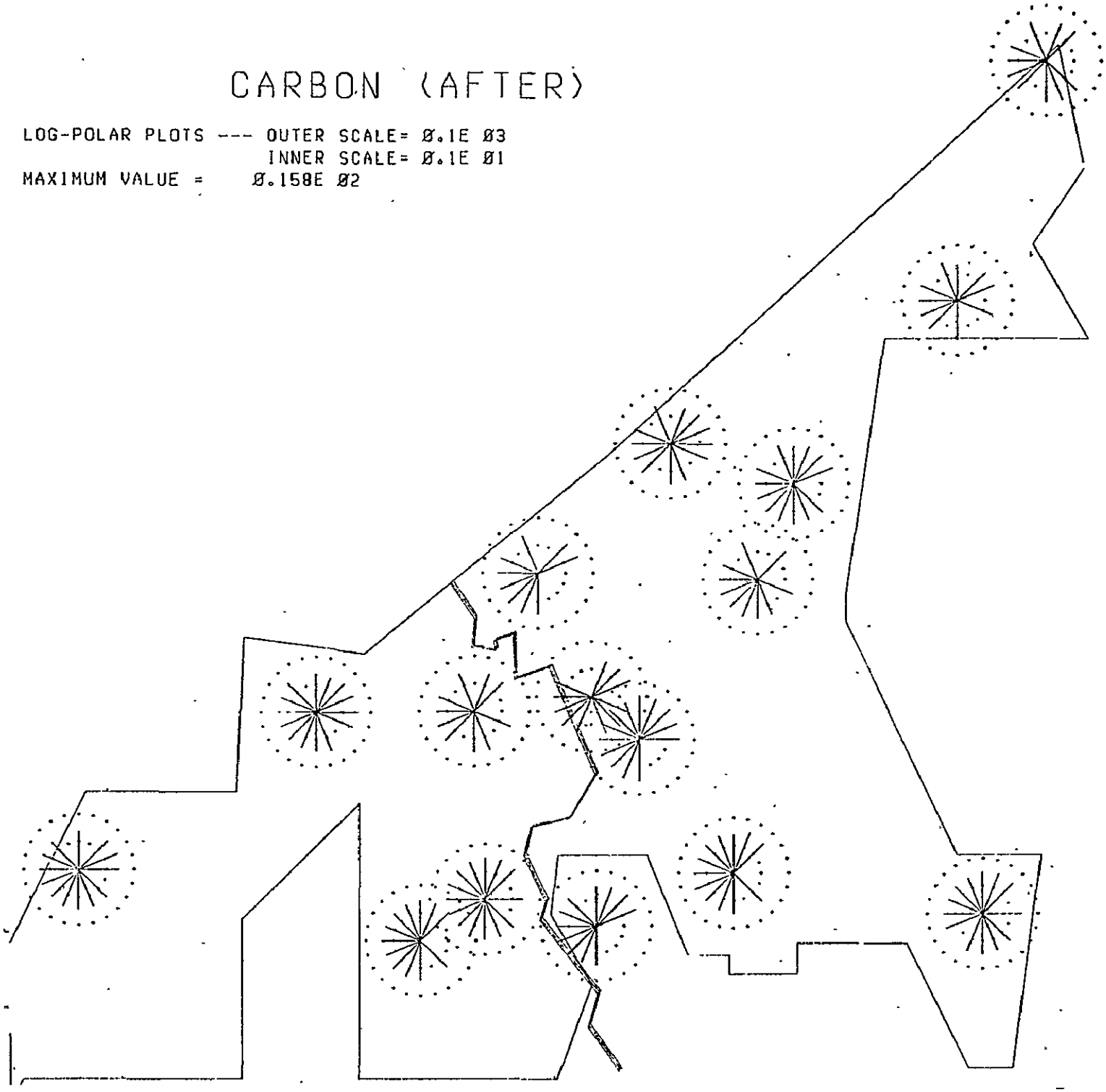
NUMBER OF READINGS

SITE	WIND FROM																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	2	3	Ø	1	1	1	Ø	1	4	3	4	1	Ø	Ø
3	4	2	2	Ø	1	Ø	1	1	5	6	1	4	3	4	5	1
4	Ø	Ø	1	Ø	Ø	1	Ø	1	1	2	5	2	4	2	Ø	3
5	1	1	3	Ø	Ø	Ø	1	Ø	3	6	1	2	3	2	2	1
6	1	Ø	3	3	Ø	2	Ø	Ø	1	Ø	3	3	2	1	Ø	2
7	1	1	7	3	1	2	Ø	1	4	3	4	4	5	2	1	Ø
8	4	1	1	Ø	Ø	Ø	1	Ø	5	6	3	3	3	3	5	1
9	2	1	3	1	1	Ø	Ø	Ø	3	7	1	4	3	1	2	2
10	Ø	1	3	3	1	2	Ø	2	2	Ø	4	6	6	3	Ø	2
12	3	Ø	3	1	1	Ø	1	1	4	4	1	3	2	2	4	Ø
13	4	1	1	1	Ø	Ø	Ø	Ø	2	3	1	4	2	3	1	Ø
14	2	1	1	Ø	1	Ø	1	1	2	2	Ø	3	2	1	3	2
15	Ø	1	3	Ø	Ø	2	Ø	1	1	Ø	2	4	2	3	Ø	2
17	1	1	5	3	Ø	Ø	1	1	1	3	3	5	3	4	Ø	2
20	Ø	1	3	Ø	Ø	Ø	1	1	1	Ø	2	2	3	2	Ø	2
21	Ø	Ø	3	1	Ø	Ø	Ø	Ø	3	2	1	3	4	2	Ø	2

1 INDICATES ESTIMATED VALUE

CARBON (AFTER)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.158E Ø2



PYRENE

NUMBER OF READINGS

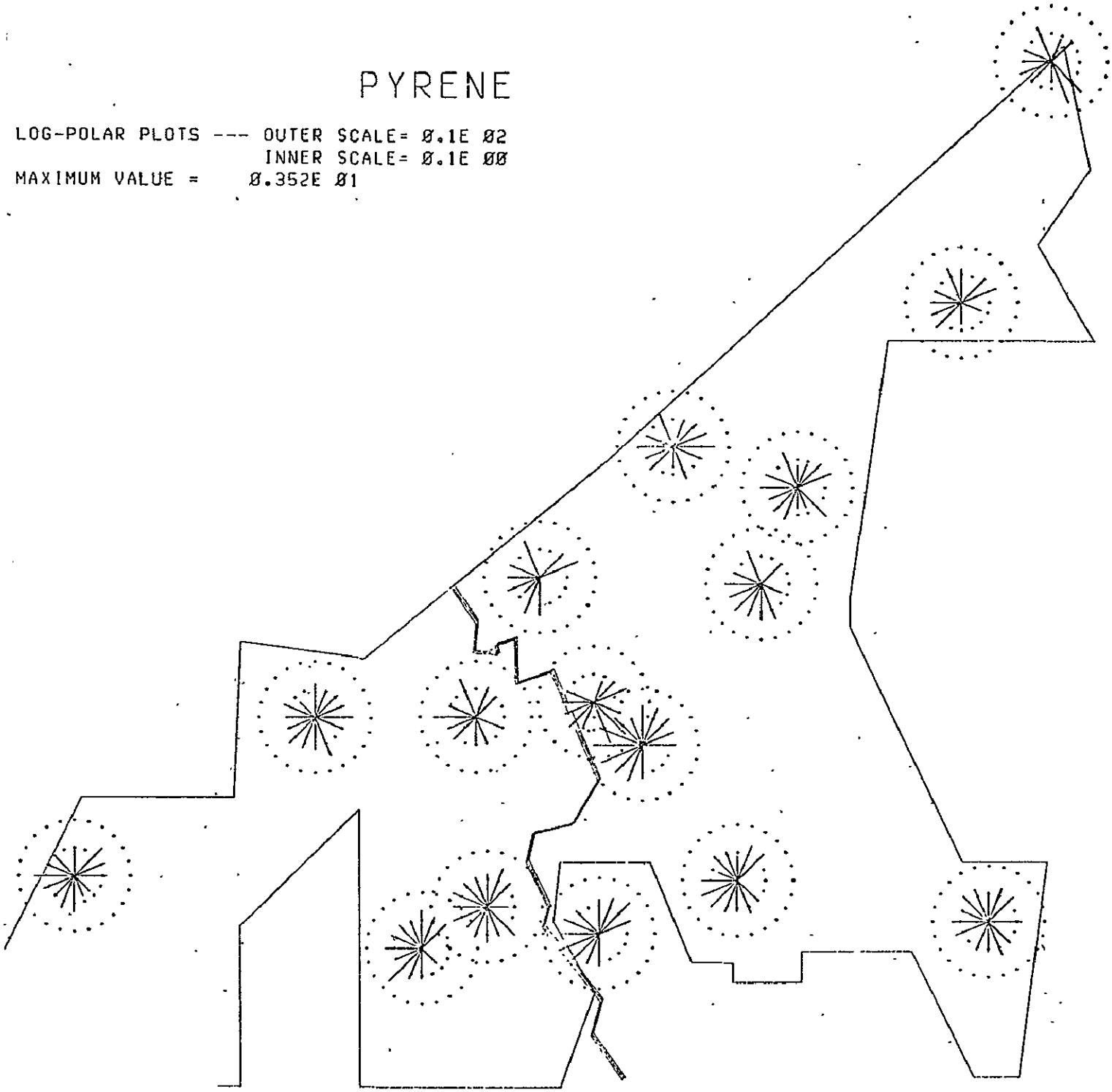
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	2	2	Ø	1	1	1	Ø	1	3	3	3	2	Ø	Ø
3	4	1	2	Ø	1	Ø	1	1	4	5	1	3	3	4	4	1
4	Ø	Ø	1	2	Ø	1	Ø	1	1	1	5	2	5	2	Ø	3
5	1	1	3	Ø	Ø	Ø	1	1	3	6	1	2	3	2	2	1
6	1	Ø	3	3	Ø	-1	Ø	Ø	-1	Ø	3	3	1	1	Ø	2
7	1	1	7	3	1	2	Ø	1	3	3	3	4	5	1	-1	Ø
8	3	1	1	Ø	Ø	Ø	-1	Ø	4	6	2	3	3	3	5	1
9	2	1	3	1	1	Ø	Ø	Ø	3	6	1	4	3	1	2	2
12	Ø	1	2	2	1	2	Ø	2	-1	Ø	4	6	4	3	Ø	2
12	3	Ø	3	1	1	Ø	-1	1	4	2	1	3	2	1	3	Ø
13	3	1	1	1	Ø	Ø	Ø	Ø	1	2	1	4	2	3	1	Ø
14	2	1	1	Ø	1	Ø	1	1	1	2	Ø	3	2	1	3	2
15	Ø	1	2	Ø	Ø	2	Ø	1	1	Ø	2	4	2	3	Ø	2
17	1	1	5	3	Ø	Ø	1	1	-1	3	2	3	2	3	Ø	2
20	Ø	1	3	Ø	Ø	Ø	1	1	-1	Ø	2	2	3	1	Ø	2
21	Ø	Ø	1	1	Ø	Ø	Ø	Ø	2	2	-1	3	3	2	Ø	1

. -1 INDICATES ESTIMATED VALUE

PYRENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.352E Ø1



1,2 BENZOFLOURENE

NUMBER OF READINGS

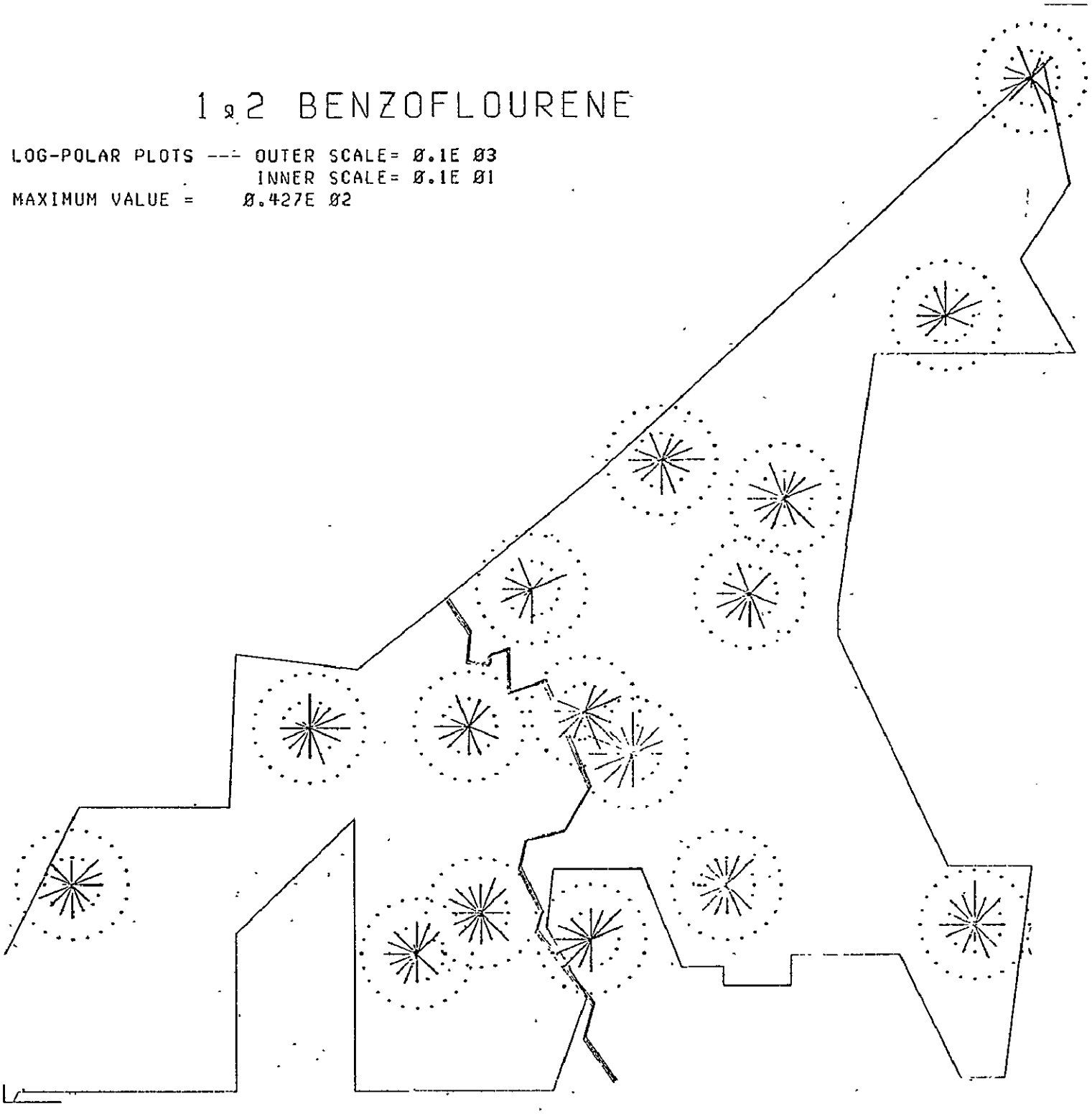
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	0	1	2	3	0	1	1	1	0	1	3	3	4	2	0	0
3	4	1	2	0	1	0	1	1	3	6	1	4	2	4	4	1
4	0	0	1	0	0	1	0	1	1	2	5	2	8	2	0	3
5	1	1	3	0	0	0	1	1	3	5	1	2	2	2	2	1
6	1	0	2	3	0	1	0	0	-1	0	3	3	1	1	0	2
7	1	1	7	3	1	2	0	1	4	2	3	4	4	2	-1	0
8	3	1	1	0	0	0	1	0	4	6	2	3	3	3	5	-1
9	2	1	3	1	1	0	0	0	3	7	1	4	3	1	2	2
10	0	1	3	2	1	2	0	2	1	0	3	6	6	3	0	2
12	3	0	3	1	1	0	1	1	4	3	1	3	-1	2	3	0
13	4	1	1	1	0	0	0	0	1	3	1	4	2	3	1	0
14	2	1	1	0	1	0	1	1	1	2	0	3	1	1	3	2
15	0	1	3	0	0	2	0	1	1	0	2	4	2	2	0	2
17	1	1	4	3	0	0	1	1	-1	3	3	5	3	4	0	2
20	0	1	3	0	0	0	1	1	-1	0	2	2	3	1	0	2
21	0	0	2	1	0	0	0	0	3	2	1	3	4	2	0	2

-1 INDICATES ESTIMATED VALUE

1,2 BENZOFLOURENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.427E Ø2



BENZ-M,N,O,-FLUORANTHENE

NUMBER OF READINGS

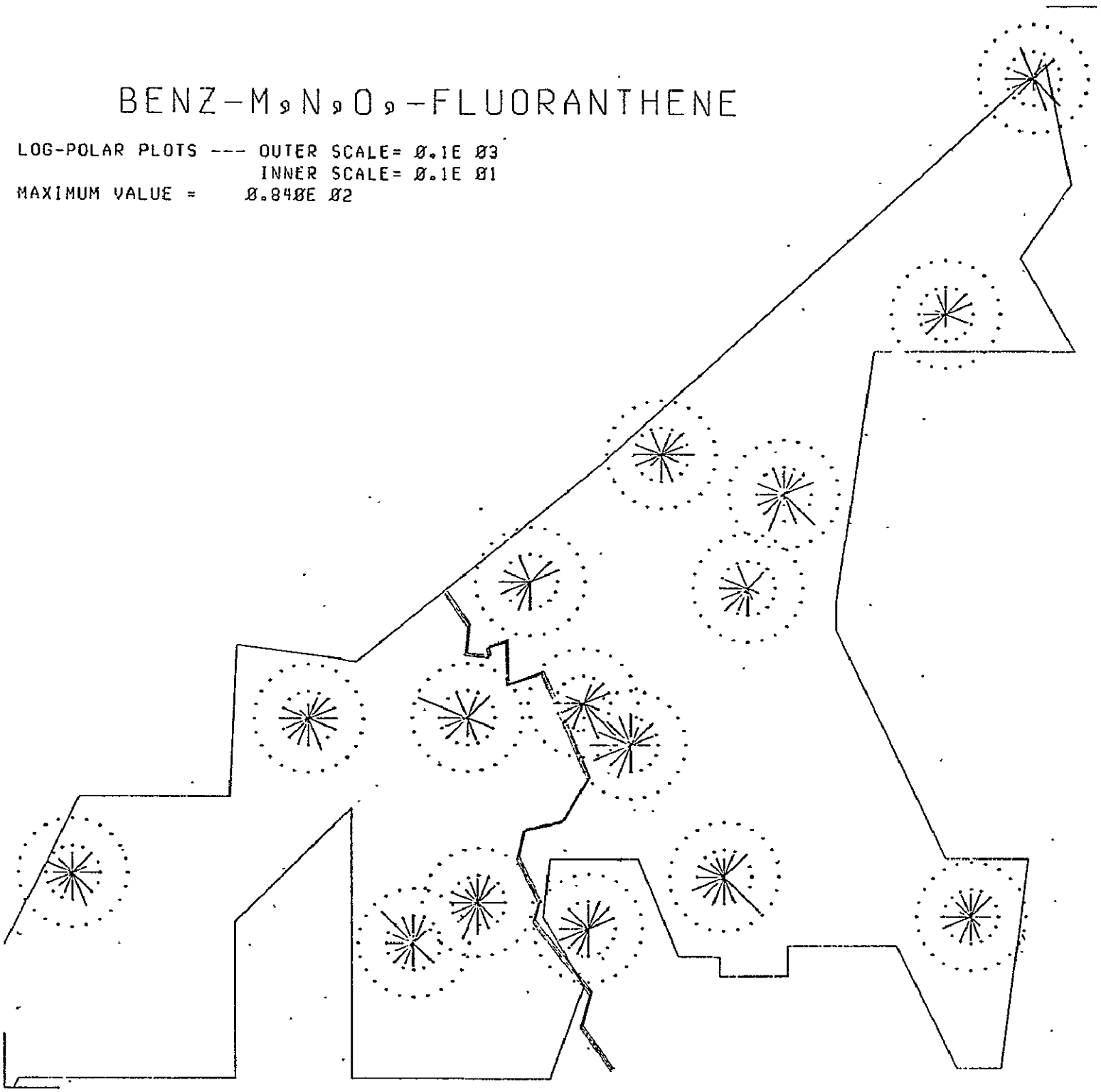
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	0	1	2	3	0	1	1	1	0	1	4	3	4	2	0	0
3	4	1	2	0	1	0	1	1	4	6	1	4	3	4	4	1
4	0	0	1	0	0	1	0	-1	1	2	5	2	5	2	0	3
5	1	1	3	0	0	0	1	1	3	6	1	2	3	2	2	1
6	1	0	3	2	0	1	0	0	-1	0	3	3	2	-1	0	2
7	1	1	7	1	1	2	0	1	4	3	4	4	5	2	-1	0
8	3	1	1	0	0	0	1	0	4	6	2	3	3	3	4	1
9	2	1	3	1	1	0	0	0	3	7	1	4	3	1	2	2
10	0	1	3	2	1	2	0	2	1	0	4	6	5	3	0	2
12	3	0	3	1	1	0	1	1	4	4	1	2	1	2	3	0
13	4	1	1	1	0	0	0	0	1	3	1	4	2	3	1	0
14	2	1	1	0	1	0	1	1	1	2	0	3	2	-1	2	2
15	0	1	2	0	0	1	0	1	1	0	2	4	2	3	0	2
17	1	1	5	3	0	0	1	1	-1	3	3	5	3	4	0	2
20	0	1	2	0	0	0	1	1	-1	0	2	2	3	2	0	2
21	0	0	2	1	0	0	0	0	2	2	1	3	4	2	0	2

-1 INDICATES ESTIMATED VALUE

BENZ-M,N,O,-FLUORANTHENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.848E Ø2



BENZACRIDINE

NUMBER OF READINGS

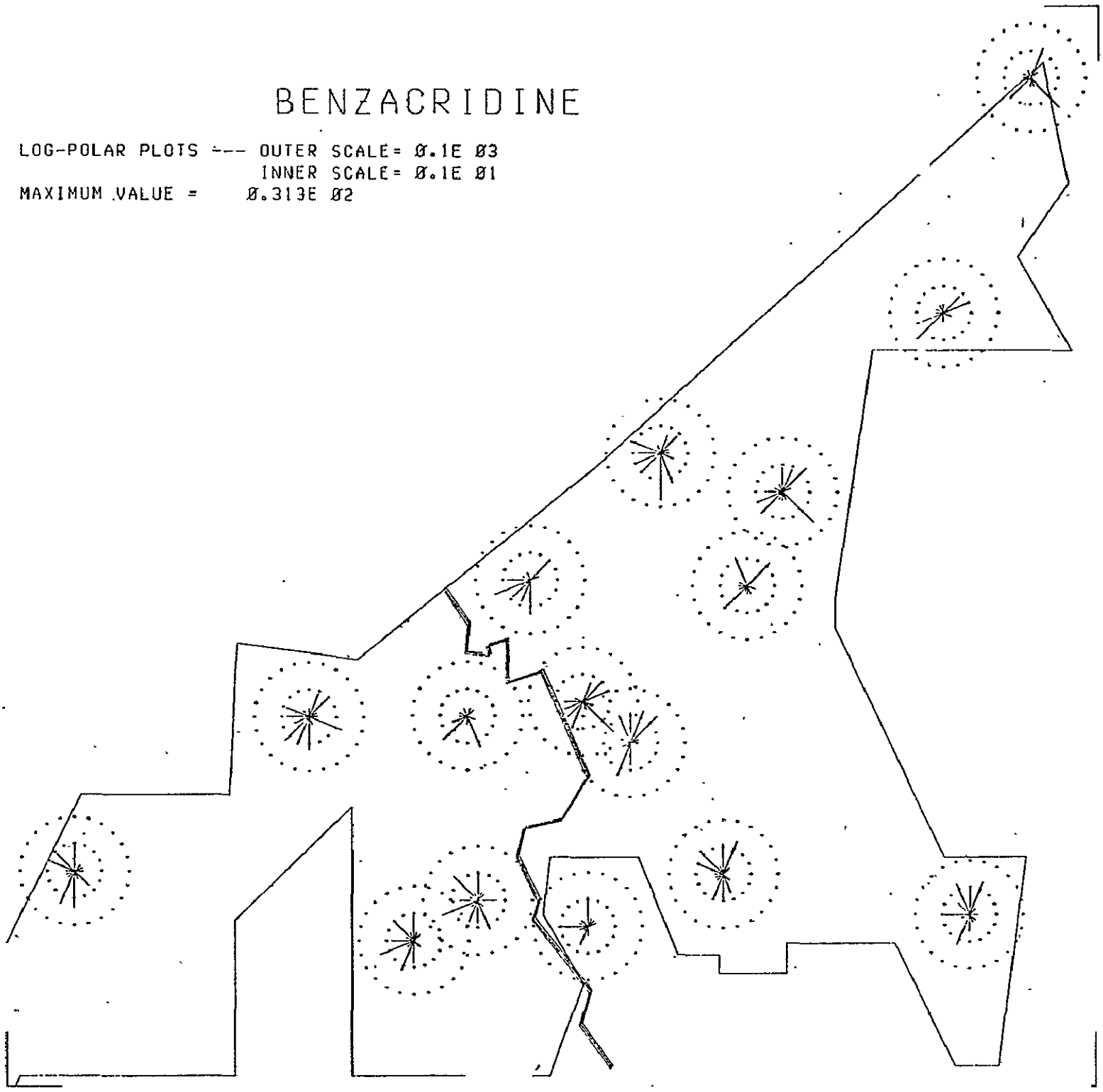
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	1	1	Ø	-1	1	-1	Ø	1	1	1	1	-1	Ø	Ø
3	3	-1	-1	Ø	1	Ø	-1	1	1	1	-1	1	1	-1	1	-1
4	Ø	Ø	1	Ø	Ø	-1	Ø	-1	-1	-1	3	-1	-1	-1	Ø	1
5	1	1	-1	Ø	Ø	Ø	-1	1	1	3	-1	-1	-1	1	1	-1
6	-1	Ø	1	1	Ø	-1	Ø	Ø	-1	Ø	1	1	-1	-1	Ø	-1
7	-1	1	4	-1	-1	1	Ø	-1	1	1	3	1	2	1	-1	Ø
8	1	-1	-1	Ø	Ø	Ø	-1	Ø	2	2	-1	1	1	-1	1	-1
9	1	1	1	-1	-1	Ø	Ø	Ø	2	3	-1	-1	-1	-1	-1	2
10	Ø	1	1	-1	-1	1	Ø	2	1	Ø	2	1	1	1	Ø	-1
12	3	Ø	-1	-1	-1	Ø	1	-1	2	3	-1	-1	1	1	2	Ø
13	3	-1	-1	-1	Ø	Ø	Ø	Ø	-1	1	-1	-1	1	-1	-1	Ø
14	1	1	-1	Ø	-1	Ø	-1	-1	1	2	Ø	-1	1	-1	1	1
15	Ø	-1	-1	Ø	Ø	-1	Ø	1	-1	Ø	1	1	-1	-1	Ø	-1
17	1	1	3	-1	Ø	Ø	1	-1	-1	-1	2	1	1	-1	Ø	-1
20	Ø	1	-1	Ø	Ø	Ø	1	-1	-1	Ø	1	-1	-1	-1	Ø	-1
21	Ø	Ø	1	-1	Ø	Ø	Ø	Ø	1	1	1	1	1	-1	Ø	-1

-1 INDICATES ESTIMATED VALUE

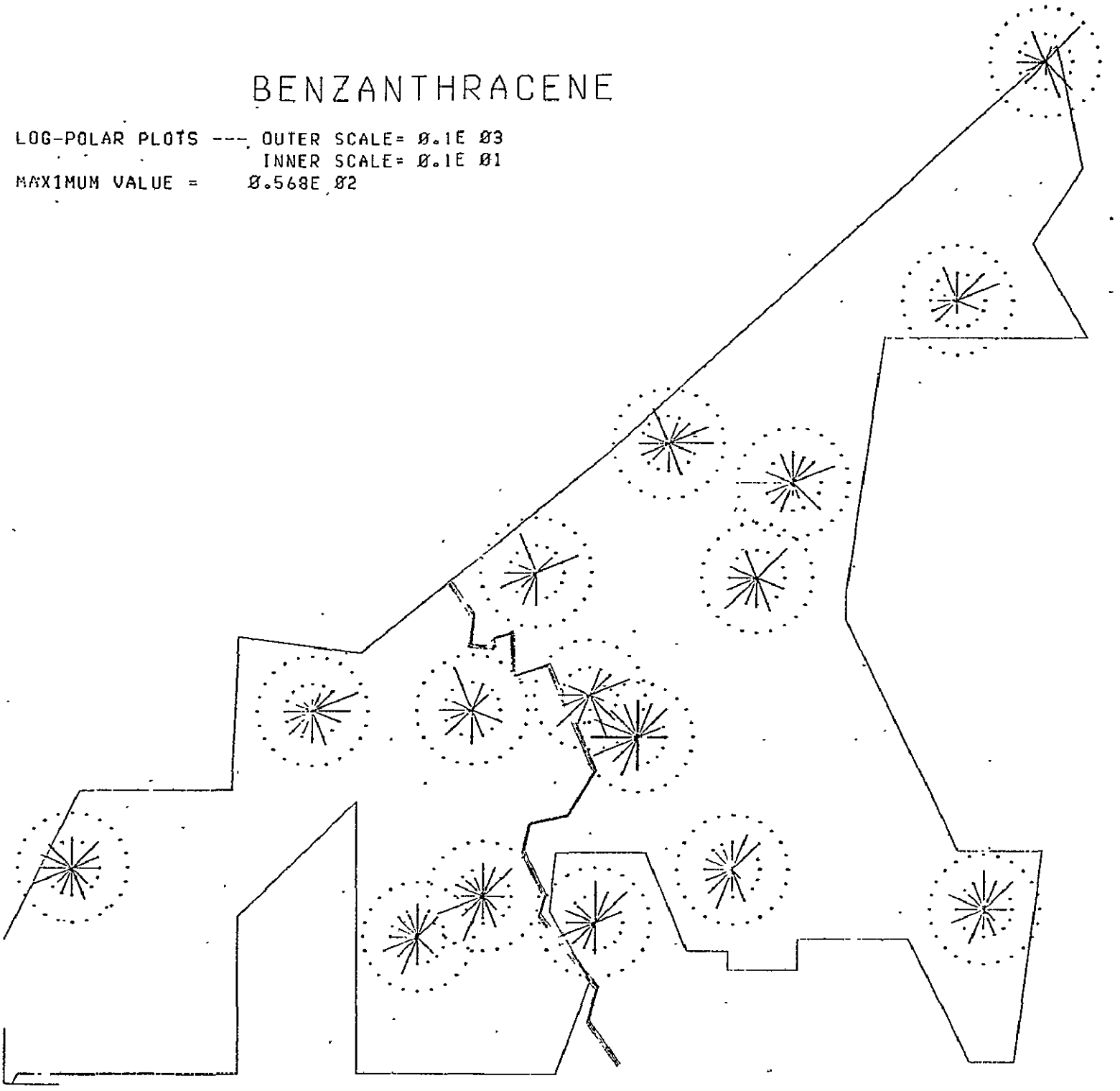
BENZACRIDINE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.313E Ø2



BENZANTHRACENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAX1MUM VALUE = Ø.568E Ø2



BENZANTHRACENE

NUMBER OF READINGS

WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	2	3	Ø	1	1	1	Ø	1	4	3	4	2	Ø	Ø
3	4	1	2	Ø	1	Ø	1	1	4	6	1	4	3	4	4	1
4	Ø	Ø	1	Ø	Ø	1	Ø	1	1	2	5	2	5	2	Ø	3
5	1	1	3	Ø	Ø	Ø	-1	1	3	6	1	2	3	2	2	1
6	1	Ø	3	3	Ø	1	Ø	Ø	-1	Ø	3	3	1	1	Ø	2
7	1	1	7	2	1	2	Ø	1	4	3	4	4	5	2	-1	Ø
8	3	1	1	Ø	Ø	Ø	1	Ø	4	6	2	3	3	3	3	1
9	2	1	3	1	1	Ø	Ø	Ø	3	7	1	3	3	1	2	2
10	Ø	1	3	2	1	2	Ø	2	1	Ø	4	6	6	2	Ø	2
12	3	Ø	3	1	1	Ø	1	1	4	5	1	3	2	2	4	Ø
13	4	1	1	1	Ø	Ø	Ø	Ø	1	3	1	4	2	3	1	Ø
14	2	1	1	Ø	1	Ø	1	1	1	2	Ø	3	2	1	2	2
15	Ø	1	3	Ø	Ø	2	Ø	1	1	Ø	2	3	2	3	Ø	2
17	1	1	5	3	Ø	Ø	1	1	-1	3	3	5	3	4	Ø	2
20	Ø	1	3	Ø	Ø	Ø	1	1	-1	Ø	2	2	3	2	Ø	2
21	Ø	Ø	3	1	Ø	Ø	Ø	Ø	2	2	1	3	4	2	Ø	2

-1 INDICATES ESTIMATED VALUE

3,4-BENZOFLUORANTHENE.

NUMBER OF READINGS

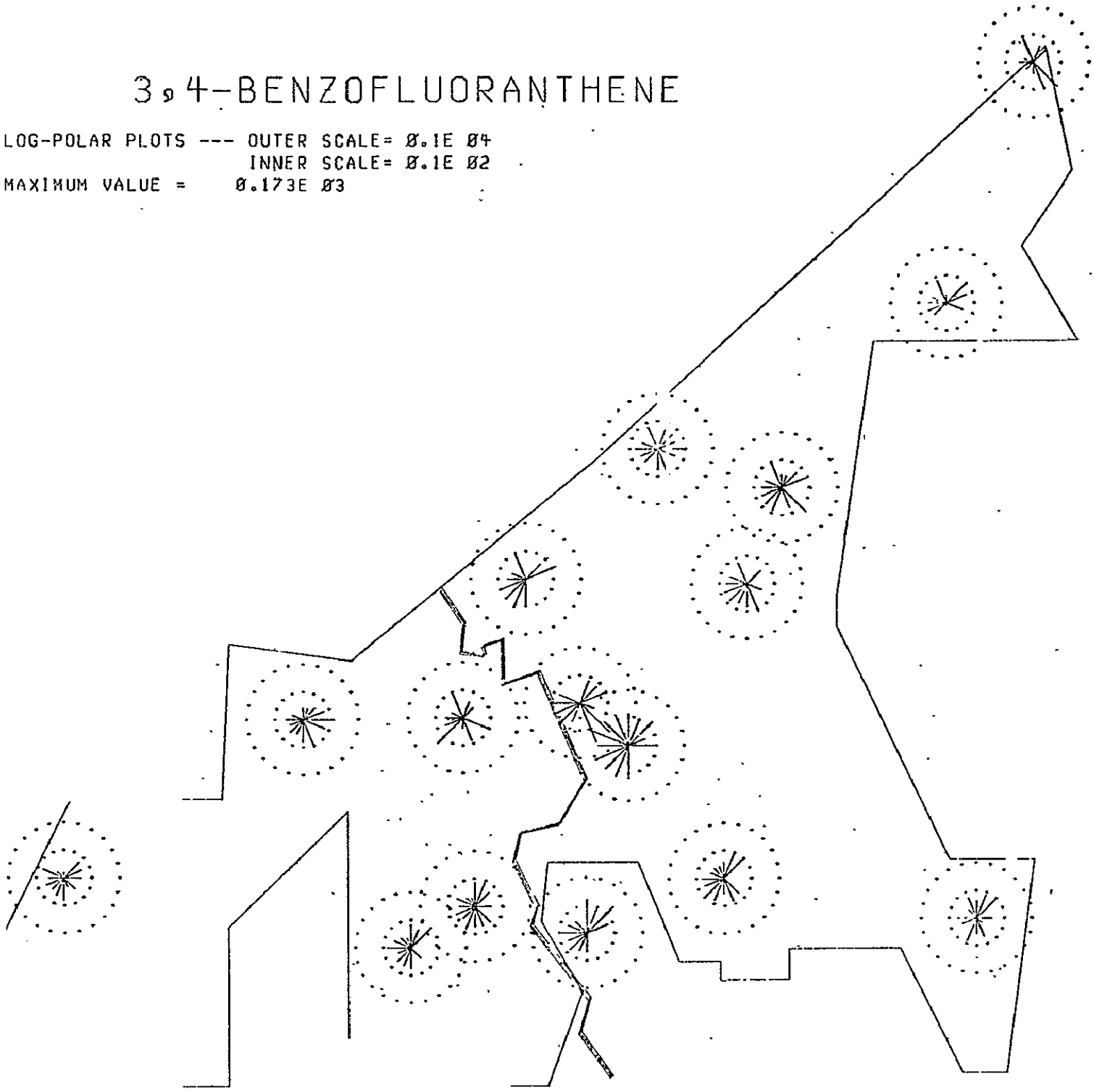
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	0	1	2	3	0	1	1	1	0	1	4	3	4	2	0	0
3	4	1	2	0	1	0	1	1	5	6	1	4	3	4	4	1
4	0	0	1	0	0	1	0	1	1	2	5	2	5	2	0	3
5	1	1	3	0	0	0	1	1	3	6	1	2	3	2	2	1
6	1	0	3	3	0	1	0	0	1	0	3	3	2	1	0	2
7	1	1	7	3	1	1	0	1	4	3	3	4	5	2	-1	0
8	3	1	1	0	0	0	1	0	5	6	2	3	3	3	5	1
9	2	1	3	1	1	0	0	0	3	7	1	4	3	1	2	2
10	0	1	3	2	1	2	0	2	1	0	4	6	6	3	0	2
12	3	0	3	1	1	0	1	1	4	4	1	3	2	2	4	0
13	4	1	1	1	0	0	0	0	1	3	1	4	2	3	1	0
14	1	1	1	0	1	0	1	1	1	2	0	3	2	1	3	2
15	0	1	3	0	0	2	0	1	1	0	2	3	2	3	0	2
17	1	1	5	3	0	0	1	1	-1	3	3	5	3	4	0	2
20	0	1	3	0	0	0	1	1	1	0	2	2	3	2	0	2
21	0	0	3	1	0	0	0	0	3	2	1	3	4	2	0	2

-1 INDICATES ESTIMATED VALUE

3,4-BENZOFLUORANTHENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.173E Ø3



1,2-BENZOPYRENE

NUMBER OF READINGS

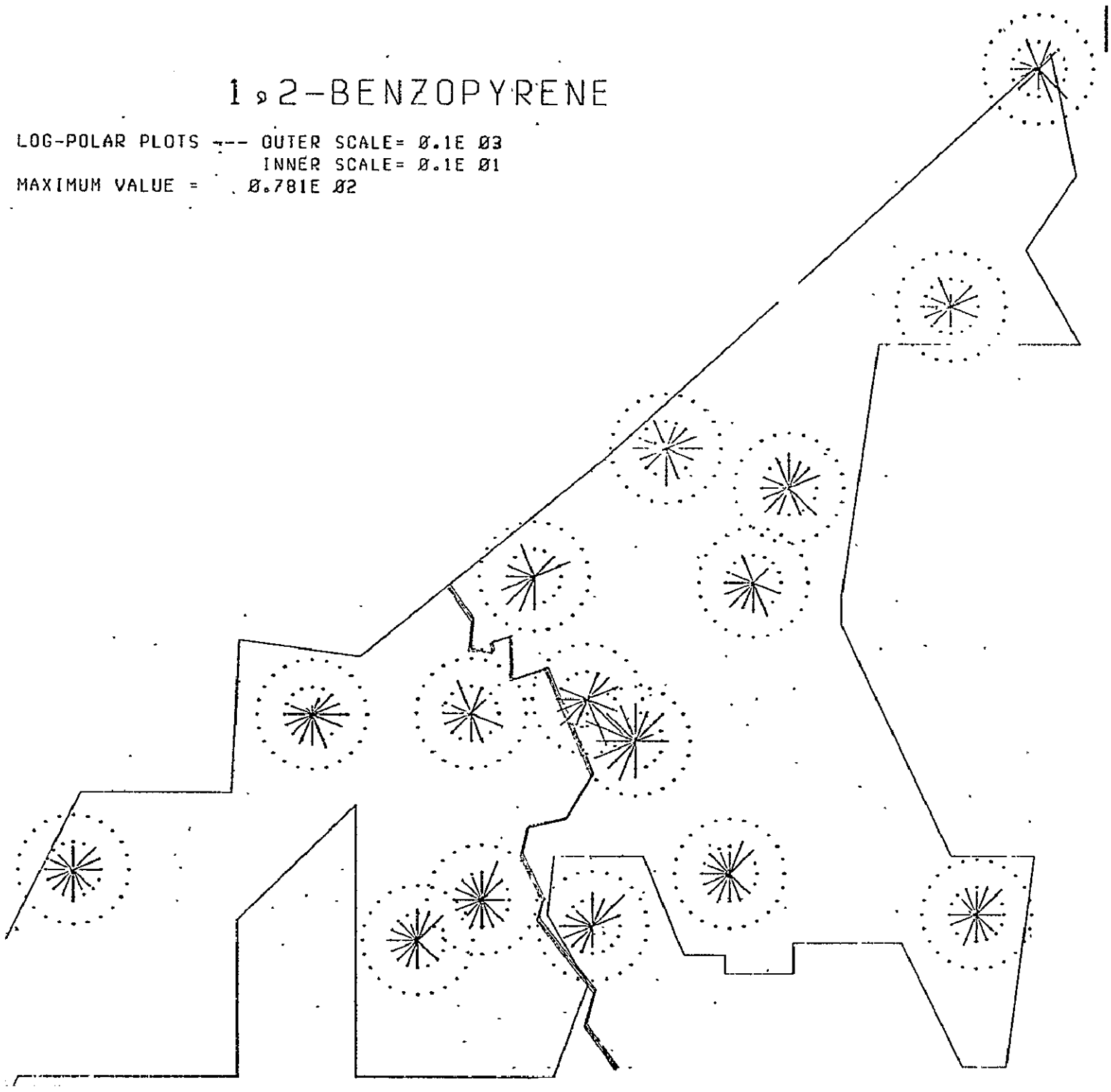
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	2	3	Ø	1	1	1	Ø	1	4	3	4	2	Ø	Ø
3	4	1	2	Ø	1	Ø	1	1	5	6	1	4	3	4	4	1
4	Ø	Ø	1	Ø	Ø	1	Ø	1	1	2	5	2	5	2	Ø	3
5	1	1	3	Ø	Ø	Ø	1	1	3	6	1	2	3	2	2	1
6	1	Ø	3	3	Ø	1	Ø	Ø	1	Ø	3	3	2	1	Ø	2
7	-1	1	7	3	1	2	Ø	1	4	3	4	4	5	2	-1	Ø
8	3	1	1	Ø	Ø	Ø	1	Ø	5	6	2	3	3	3	5	1
9	2	1	3	1	1	Ø	Ø	Ø	3	7	1	4	3	1	2	2
10	Ø	1	3	2	1	2	Ø	2	1	Ø	4	6	6	3	Ø	2
12	3	Ø	3	1	1	Ø	1	1	4	5	1	3	2	2	4	Ø
13	4	1	1	1	Ø	Ø	Ø	Ø	2	3	1	4	2	3	1	Ø
14	2	1	1	Ø	1	Ø	1	1	1	2	Ø	3	2	1	3	2
15	Ø	1	3	Ø	Ø	2	Ø	1	1	Ø	2	4	2	3	Ø	2
17	1	1	5	3	Ø	Ø	1	1	-1	3	3	5	3	4	Ø	2
20	Ø	1	3	Ø	Ø	Ø	1	1	1	Ø	2	2	3	2	Ø	2
21	Ø	Ø	3	1	Ø	Ø	Ø	Ø	3	2	1	3	4	2	Ø	2

-1 INDICATES ESTIMATED VALUE

1,2-BENZOPYRENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.781E Ø2



3,4-BENZOPYRENE

NUMBER OF READINGS

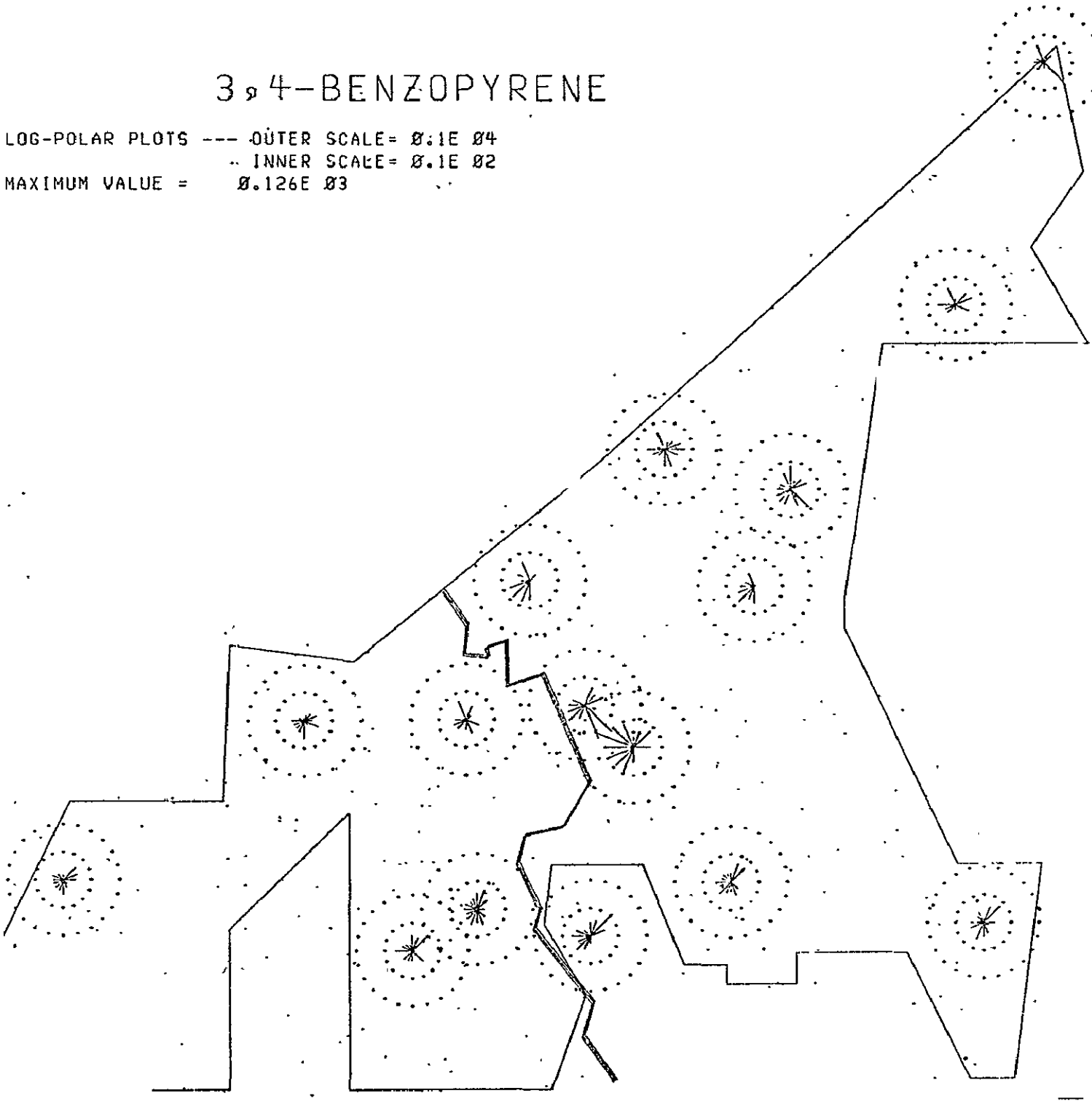
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	0	1	2	3	0	-1	1	1	0	1	4	3	4	2	0	0
3	4	1	2	0	1	0	1	1	5	4	1	3	3	4	4	1
4	0	0	1	0	0	-1	0	-1	1	2	5	2	5	2	0	3
5	1	1	3	0	0	0	1	1	3	5	1	2	3	2	2	1
6	1	0	3	2	0	1	0	0	1	0	3	3	2	1	0	2
7	1	1	7	3	1	2	0	-1	4	3	4	4	5	2	-1	0
8	2	1	1	0	0	0	1	0	4	4	2	1	3	3	5	1
9	1	1	3	1	1	0	0	0	3	7	1	4	3	1	2	2
10	0	1	3	2	1	1	0	2	1	0	4	5	6	3	0	2
12	3	0	3	1	1	0	1	1	4	5	1	2	2	2	4	0
13	4	1	1	1	0	0	0	0	1	3	1	4	2	3	1	0
14	2	1	1	0	1	0	1	1	1	2	0	3	2	1	3	2
15	0	1	2	0	0	2	0	1	1	0	2	4	2	3	0	2
17	1	1	5	2	0	0	1	1	-1	3	3	5	3	3	0	2
20	0	1	3	0	0	0	1	-1	1	0	2	2	3	2	0	2
21	0	0	2	-1	0	0	0	0	3	2	1	3	4	2	0	2

-1 INDICATES ESTIMATED VALUE

3,4-BENZOPYRENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø4
INNER SCALE= Ø.1E Ø2
MAXIMUM VALUE = Ø.126E Ø3



PERYLENE

NUMBER OF READINGS

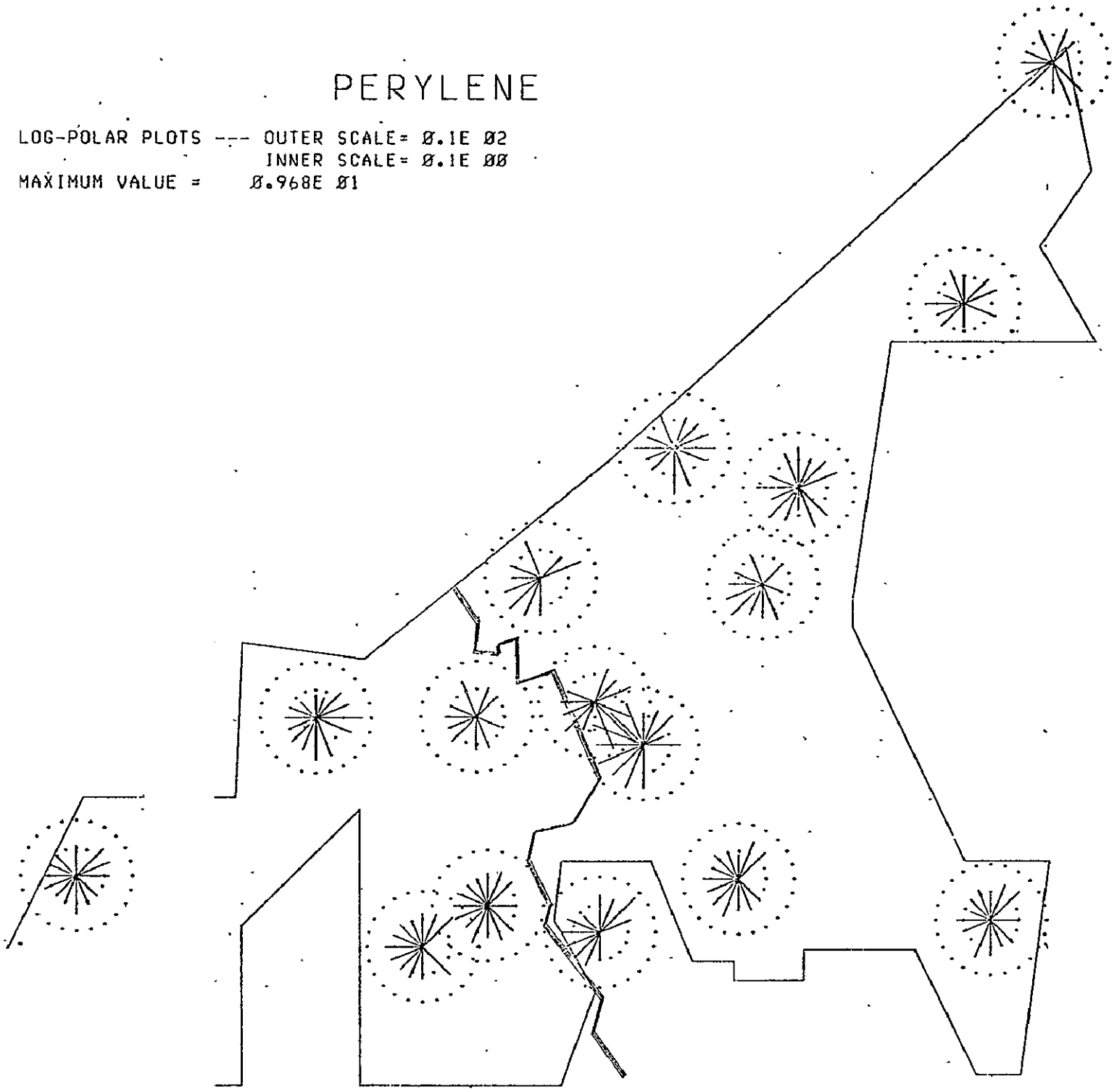
ND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	2	3	Ø	1	1	1	Ø	1	4	3	3	2	Ø	Ø
3	4	1	2	Ø	1	Ø	1	1	4	5	1	4	3	4	4	1
4	Ø	Ø	1	Ø	Ø	-1	Ø	1	1	2	5	2	5	2	Ø	3
5	1	1	3	Ø	Ø	Ø	1	1	3	4	1	2	3	2	2	1
6	1	Ø	3	1	Ø	1	Ø	Ø	1	Ø	3	3	2	1	Ø	2
7	1	1	7	3	1	1	Ø	1	4	3	4	4	5	2	-1	Ø
8	2	1	1	Ø	Ø	Ø	1	Ø	5	5	1	3	3	3	5	1
9	1	1	3	1	1	Ø	Ø	Ø	3	7	1	4	3	1	2	2
10	Ø	1	3	2	1	1	Ø	2	1	Ø	4	6	6	3	Ø	2
12	3	Ø	3	1	1	Ø	1	1	4	4	1	3	1	2	4	Ø
13	4	1	1	1	Ø	Ø	Ø	Ø	1	3	1	4	2	3	1	Ø
14	2	1	1	Ø	1	Ø	1	1	1	2	Ø	3	2	-1	3	2
15	Ø	1	3	Ø	Ø	1	Ø	1	1	Ø	2	3	2	3	Ø	2
17	1	1	4	3	Ø	Ø	1	1	-1	3	3	5	2	4	Ø	2
20	Ø	1	3	Ø	Ø	Ø	1	1	1	Ø	2	2	3	2	Ø	2
21	Ø	Ø	2	1	Ø	Ø	Ø	Ø	2	2	1	3	4	2	Ø	2

INDICATES ESTIMATED VALUE

PERYLENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.968E Ø1



1,12-BENZOPERYLENE

NUMBER OF READINGS

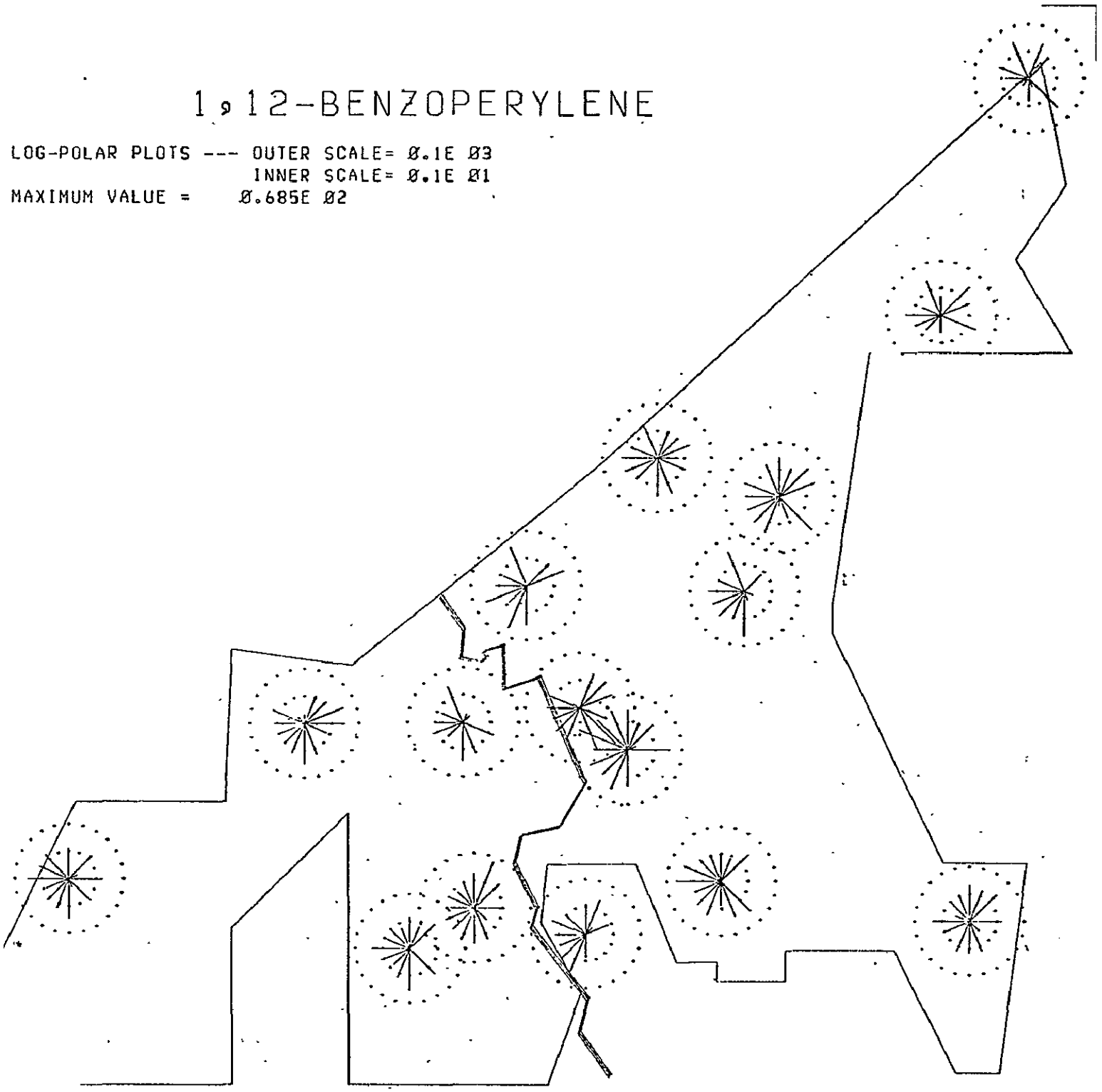
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	0	1	2	3	0	1	1	1	0	1	3	3	4	1	0	0
3	4	1	2	0	1	0	1	1	4	6	1	3	3	3	3	1
4	0	0	1	0	0	-1	0	-1	1	2	4	2	4	2	0	2
5	1	1	2	0	0	0	1	1	3	5	1	2	3	1	2	1
6	1	0	2	2	0	1	0	0	1	0	3	3	2	1	0	2
7	1	1	6	3	1	2	0	1	4	3	4	4	5	1	-1	0
8	2	1	1	0	0	0	1	0	5	5	2	3	2	3	3	1
9	2	-1	3	-1	1	0	0	0	3	7	1	4	2	1	2	2
10	0	1	2	2	1	2	0	2	1	0	4	5	5	2	0	1
12	3	0	3	-1	1	0	1	-1	4	4	1	2	1	1	4	0
13	4	1	-1	1	0	0	0	0	1	1	1	4	2	3	1	0
14	2	1	1	0	1	0	1	1	1	2	0	3	2	1	2	2
15	0	-1	-1	0	0	2	0	1	1	0	2	4	2	2	0	2
17	1	1	3	3	0	0	1	1	-1	2	2	5	1	2	0	2
20	0	1	3	0	0	0	1	-1	1	0	-1	2	3	2	0	1
21	0	0	3	1	0	0	0	0	1	2	1	3	4	2	0	2

-1 INDICATES ESTIMATED VALUE

1,12-BENZOPERYLENE

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø3
INNER SCALE= Ø.1E Ø1
MAXIMUM VALUE = Ø.685E Ø2



ALIPHATICS (TOTAL)

NUMBER OF READINGS

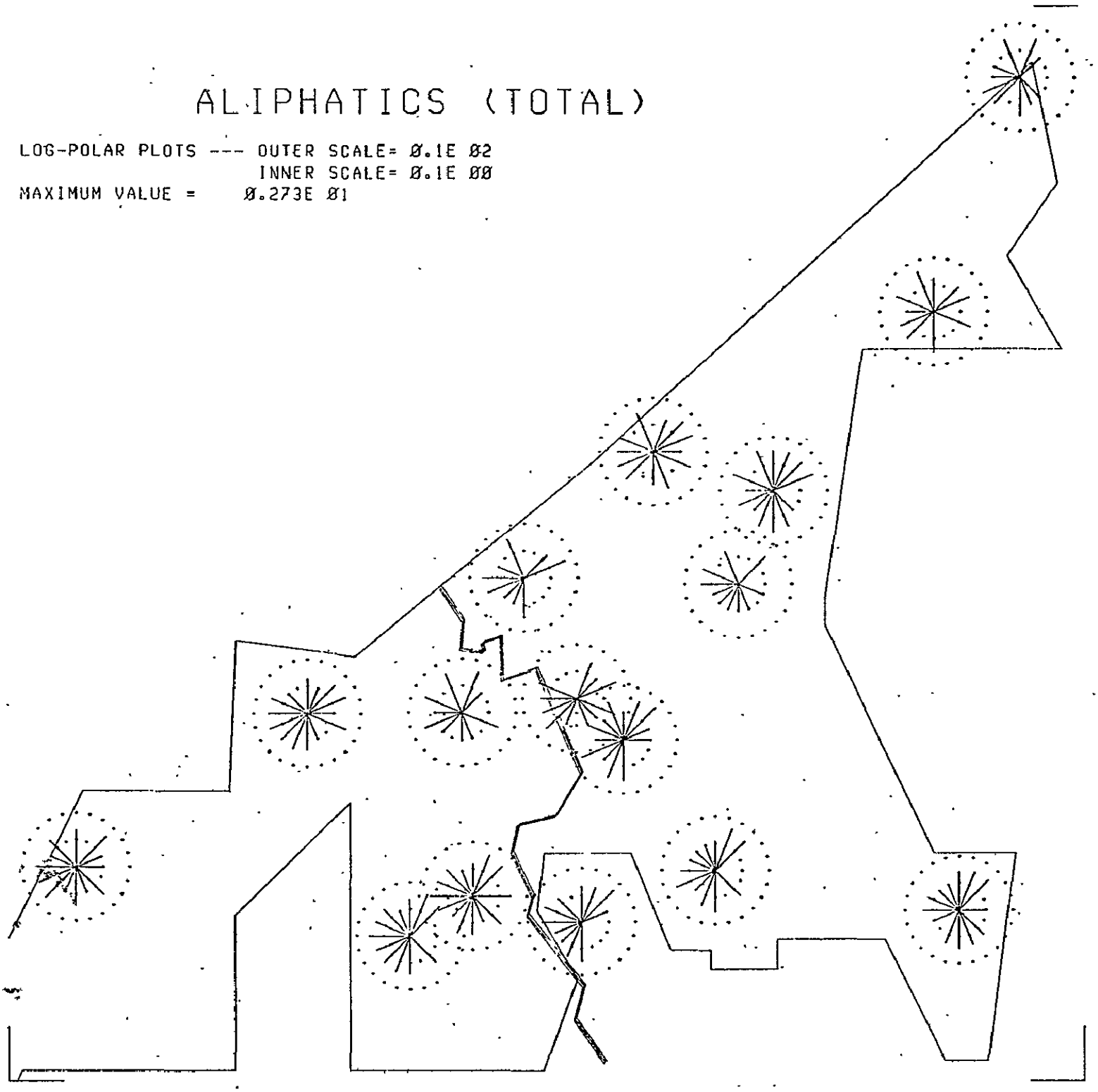
WIND FROM

SITE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	Ø	1	-1	3	Ø	1	-1	-1	Ø	-1	2	2	1	1	Ø	Ø
3	2	1	2	Ø	1	Ø	1	-1	3	3	-1	2	1	2	2	-1
4	Ø	Ø	1	Ø	Ø	-1	Ø	-1	-1	-1	-1	-1	3	1	Ø	2
5	1	1	2	Ø	Ø	Ø	1	Ø	3	3	-1	1	1	-1	-1	-1
6	1	Ø	2	3	Ø	1	Ø	Ø	1	Ø	1	2	-1	1	Ø	2
7	1	-1	3	3	-1	1	Ø	-1	1	1	1	3	3	1	-1	Ø
8	3	1	1	Ø	Ø	Ø	1	Ø	3	4	1	3	2	2	2	-1
9	-1	1	1	-1	-1	Ø	Ø	Ø	2	2	-1	1	-1	1	-1	1
10	Ø	1	1	3	-1	1	Ø	1	1	Ø	1	3	1	1	Ø	1
12	2	Ø	2	-1	-1	Ø	1	-1	2	1	1	3	1	-1	2	Ø
13	2	1	1	-1	Ø	Ø	Ø	Ø	2	2	-1	-1	1	1	1	Ø
14	1	1	1	Ø	-1	Ø	1	1	2	1	Ø	-1	1	1	1	-1
15	Ø	1	-1	Ø	Ø	1	Ø	-1	-1	Ø	-1	3	-1	1	Ø	2
17	1	1	2	3	Ø	Ø	-1	1	1	1	-1	4	-1	1	Ø	2
20	Ø	1	-1	Ø	Ø	Ø	-1	-1	1	Ø	1	2	-1	-1	Ø	2
21	Ø	Ø	1	1	Ø	Ø	Ø	Ø	1	-1	-1	2	2	-1	Ø	1

-1 INDICATES ESTIMATED VALUE

ALIPHATICS (TOTAL)

LOG-POLAR PLOTS --- OUTER SCALE= Ø.1E Ø2
INNER SCALE= Ø.1E ØØ
MAXIMUM VALUE = Ø.273E Ø1



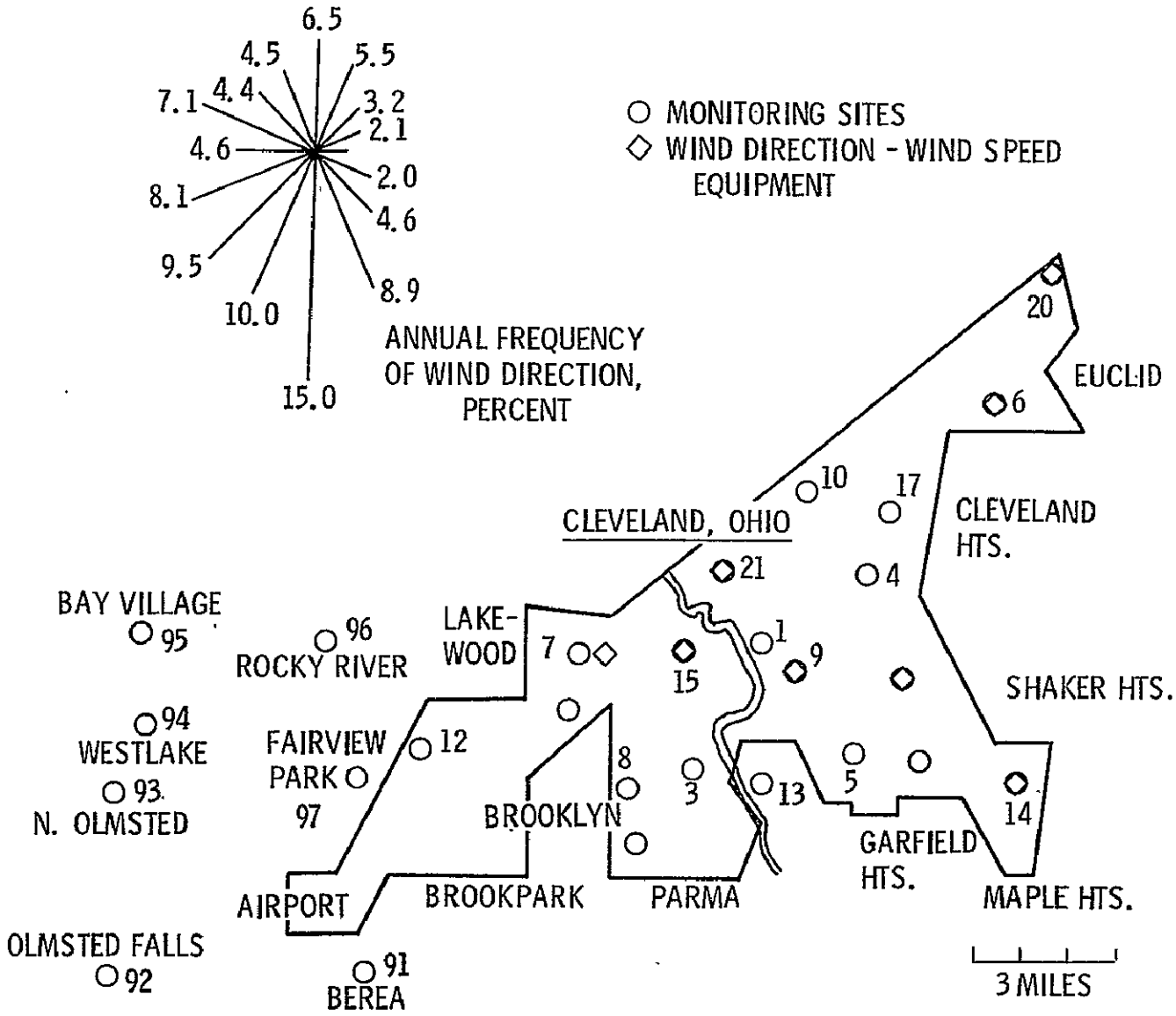


Figure 1. Sampling site locations.

E 8288